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WHO HATH WARNED?

And now Mr. Daniel Guggenheim joins the ranks of the leaders for Government control of corporations. Still, some people, of the gullible mind of the statesmen who thought that the Porto Rican tariff of ten years ago was a blow at the Sugar Trust, continue to advocate such a project. But who is to decide whether it will be a case of the Government controlling the corporations of the corporations controlling the Government? Either alternative is a menace to the country.

A RECIPROCITY WHY?

Light upon the cottonseed-oil feature in the proposed reciprocity with Canada may be thrown in the fact that there is at Toronto, Canada, a refinery equipped to manufacture a complete line of salad oils, cooking oils and shortening composed of compounds of vegetable and animal fats and oils. The capacity of this plant is 20,000,000 pounds a year, and, according to a report from United States Consul Felix S. S. Johnson at Kingston, the company has a line of tank cars engaged in carrying cottonseed oil in its crude state from the mills of the Southern States. Why should Southern cottonseed crushers encourage any plan to facilitate the movement of their crude products to Canada to be shipped back in finished form for the South to purchase instead of urging legislation that will encourage the complete handling of cottonseed right at the source of production? Why should the South continue to permit itself to be used to pull chestnuts out of the fire for others?

NEW ENGLAND COTTON MANUFACTURING AS AN OBJECT-LESSON TO THE SOUTH.

The recent celebration of the centennial of the founding of Fall River's cotton-manufacturing industry lends special interest to a series of articles dealing broadly with the cotton-mill industry in New England written for the MANUFACTURERS RECORD by Mr. George French of Boston. The first of these articles is published in this issue. There was little time between the beginnings of the cotton factory in New England and in the South. But the impetus given to cotton growing through the invention of the mechanical gin retarded for half a century the textile industry in the South, because the capital there interested in cotton regarded it as more profitable to invest in growing the staple than in manufacturing it. Nevertheless, in 1860 nearly \$12,000,000 were invested in Southern cotton mills, having 217,291 spindles and 5615 looms, consuming 10,502 bales of cotton annually. One of the most striking manifestations of the South's recuperation in the past 30 years has been in the growth of the textile industry to a point where Southern mills have in two or three years actually consumed more American-grown cotton than have all the other mills of the country. Conditions in the South have been so abnormally favorable that it has been almost impossible for the second generation in cotton manufacturing not to continue to reap the advantages foreseen by the pioneers of the early eighties, some of whom were the successful manufacturers of the ante-bellum days. But in the past few years the situation has changed, and the Southern textile industry has been brought face to face with the necessity to get upon the basis which has been the normal in other parts of the country for many years. Conviction on that point is rapidly growing. It will be still further strengthened by consideration of the experience of New England suggested in the articles of Mr. French.

FLORIDA AND KENTUCKY FARMS.

Between 1900 and 1910 the population of Florida increased at a greater rate than the population of any other Southern State, and, in fact, its rate of increase was surpassed in only 13 other States, all of them west of the Mississippi River. A consequence of this increase, and, at the same time, a cause, appear in the agricultural statistics of the State in the 10 years. In the face of decreases in the acreage of farms in a great many States of the country the total farm area in Florida increased from 4,364,000 acres to 5,231,000 acres, or 20 per cent., and the improved area of farms from 1,512,000 acres to 1,803,000 acres, or 19 per cent. The number of farms increased from 40,814 to 49,834, or 22 per cent.; the value of farm land from \$30,823,000 to \$93,288,000, or 203 per cent., and the value of buildings

from \$9,977,000 to \$24,335,000, or 144 per cent. The average value per acre increased from \$7.06 to \$17.83.

The increase in population in Florida, 42.4 per cent., brought the total in the State to 752,619. Kentucky has more than three times that population, but its total in 1910 represented an increase in 10 years of only 6.6 per cent. That is reflected in the agricultural statistics. In the 10 years the total farm area increased from 21,979,000 acres to 22,159,000 acres, or 1 per cent.; the improved farm area from 13,742,000 acres to 14,334,000 acres, or 4 per cent., and the number of farms from 234,067 to 258,742, or 10 per cent. The value of farm land increased from \$291,117,000 to \$483,127,000, or 66 per cent., and the value of buildings from \$90,887,000 to \$150,655,000, or 66 per cent. The average value per acre of land increased from \$13.25 to \$21.80, or 65 per cent.

The average value per acre of farm land in the whole country increased from \$15.57 to an estimated \$28.37. It will be noted that the average value per acre, both in Kentucky and in Florida, is still below the average for the country, and it may be suggested that the rate of advance in such value in the two States is characteristic of the tendency to take advantage of the comparatively low prices for land in the South.

PORTLAND CEMENT'S REMARKABLE GROWTH.

Growth of the Portland-cement industry is one of the most dramatic facts in the manufacturing history of this country. In this respect it is hardly surpassed by the cotton-oil industry, which from tiny beginnings 50 years ago has now an annual production greater by \$40,000,000 than the annual Portland-cement output. Thirty years ago this country produced but 42,000 barrels of Portland cement, valued at \$126,000; in 1910 the production was 75,699,485 barrels, valued at \$67,506,479, or 1800 times as much in quantity and 536 times as much in value. The great expansion in Portland-cement production began between 1890 and 1900, when there was an increase from 335,500 barrels to 8,482,020 barrels. The impetus then acquired has been maintained ever since, and it is emphasized in a comparison of Portland-cement production with production in other lines as follows:

	1900.	1910.
Lumber, feet.....	34,780,513,000	45,000,000,000
Coal, tons.....	269,684,027	485,000,000
Pig-iron, tons.....	13,789,342	27,398,545
Petroleum, barrels.	63,382,416	216,588,308
Cement, barrels....	8,482,020	75,699,485

Between 1900 and 1910 the lumber cut increased from 34,780,513,000 feet to an estimated 45,000,000,000 feet, or by 10,219,487,000 feet, equal to 29.4 per cent.; coal mined from 269,684,027 tons to an estimated 485,000,000 tons, or by 215,315,973 tons, equal to 79.8 per cent.; pig-iron made from 13,789,342 tons to 27,398,545 tons, or by 13,509,203 tons, equal to 90.7 per cent.; petroleum produced from 63,382,416 barrels to 216,-

588,308 barrels, equal to 241.7 per cent., and Portland cement manufactured from 8,482,020 barrels to 75,699,485 barrels, equal to 792.4 per cent.

From an insignificant item 30 years ago, cement production has come to rank eighth as to value of products among what the United States Geological Survey calls extractive industries, only coal, pig-iron, petroleum and gas, clay products, copper, gold and stone exceeding it. Of the 110 plants in the country which produced Portland cement last year, 15 are in the South, and of the eight plants which began operations in that year, three are in the South, one each in Alabama, Texas and Virginia.

MUNICIPAL ADVERTISING IN BALTIMORE AND ELSEWHERE.

The new Mayor of Baltimore found upon the statute-books an old law that had been a dead letter for some twenty-five or thirty years, which, in substance, said that a reduction of 25 per cent. should be allowed on city advertising bills. It is regarded in some quarters as an unfortunate coincidence that Mayor Preston brought this law to the front at the very time he was in a controversy with two of the daily newspapers of the city, because thereby the main issue may be obscured. It is that no reputable newspaper, worthy to be classed as a good advertising medium, will in these days cut its advertising rates for anybody, and the two Baltimore papers very properly took the position that they will not be controlled by a law which undertakes to say that they shall be dishonest by giving lower rates to one advertiser than they do to others for exactly the same kind of service. Therefore, they will not accept Baltimore city advertising on these terms. There ought not, however, to be the slightest difficulty about removing all occasion for the clash between Mayor Preston and the newspapers of the city over rates for municipal advertising. The simple way out of the difficulty would seem to be through the repeal of the particular law. Its antiquity does not necessarily relieve the Mayor of abiding by it as long as it is a law, provided with equal earnestness he enforces every other law on the statute-books. If he is not enforcing every law on the books, then to attempt to enforce this one particular law, which, like some of the Blue Laws, seems to have died by inaction, is absurd. Every law should be enforced or repealed. This law, it would seem, must go back to the days when municipal advertisements were the recognized and unquestioned devices for paying the debts of politicians to the newspapers that had made it possible for them to hold office, and pay for it by the placing of advertisements. In those olden days such advertisements were of the nature of "fat," as the printers call it. They were magnificent examples of spending with newspapers large sums

of money without regard to the returns in benefit to the city or county.

But public opinion and the law have made considerable progress in the past twenty-five or thirty years in this field. Municipal advertisers, as well as other advertisers, have come to learn that advertising does not mean simply giving publicity to facts. They have learned that advertising to be of value must be made through mediums that will place the information before the public which it is desired to reach. They know, for instance, that an advertisement of proposals for sewerage work or street paving would be of no use either in a sporting journal or in a religious publication, and that the money spent to insert it in either would be wasted.

The Mayor of Baltimore, as the Mayor of every other city, has a very serious responsibility in the matter of advertising for public work. He fails to measure up to this responsibility if he does not place the advertisements where they produce the most active bidding, and, therefore, the best results for the city. About a year ago the MANUFACTURERS RECORD published a letter from Mr. Calvin W. Hendrick, chief engineer of the Sewerage Commission, in which he said that the advertising of the great sewerage work of Baltimore in the MANUFACTURERS RECORD and other papers of its kind had saved this city at least \$1,000,000 by bringing about competitive bids from the leading contractors of all parts of the United States. This is only typical of what is seen in every honestly-managed city where the people in authority advertise in newspapers, not for the purpose of pleasing the newspapers, nor of currying favor with them, as some people senselessly imagine can be done by a little bit of advertising, nor to pay political debts, but for the sole purpose of securing the best results for the community. Any other policy would be rotten to the core and be worthy of the days of "Tweedism." It is fortunate for the country that the men in authority in State and city and county affairs to a very large extent recognize their responsibility to the public in the matter of advertising for public work.

Whatever ignorance of the law or other influences may have had to do with the case in the past, the situation in Baltimore today is about as clearly defined as anyone could wish. The matter of the relations of office-holders and the newspapers is entirely eliminated from the question of advertising, because most of the daily papers strongly antagonized Mayor Preston's election. In twenty years there has been no Mayor of Baltimore under so slight an obligation of any kind to the newspapers of the city as Mayor Preston. It is, therefore, all the more incumbent upon him to secure the repeal of the advertising law to which no self-respecting newspaper could yield, and in doing this he will give another indication of his determination to be the Mayor of the city on his own hook and under dictation from no one, even the newspapers.

If Mr. Hendrick was right, and Baltimore saved \$1,000,000 on its sewerage work by the right kind of advertising, is it not incumbent upon Mayor Preston and the officials of every city to reach, by the right kind of advertising, the people from whom the best bids for city work can be had?

THE LARGEST STEAMSHIP AFLOAT.

After an interval of less than four years everyone is again privileged to see another "largest vessel in the world." It was the Lusitania which last astonished everybody not only by her size, but by her great speed. Now it is the Olympic that claims attention as the largest example of marine architecture and engineering. This newest mammoth of the seas is 882½ feet long and of 45,000 tons register. She is 93½ feet longer and 12,500 tons larger than the Lusitania. Thus her length is very nearly 12 per cent, and her tonnage 38½ per cent, more than the Cunarder. As compared with the Great Eastern, which for years was the largest ship afloat, the Olympic is more than 200 feet longer and nearly 2½ times greater in tonnage, the old and long-famous craft having been 680 feet in length and of 18,918 tons.

In the creation of such a huge and wonderful steamship as the Olympic designers and builders aimed to make her extremely comfortable as well as of enormous carrying capacity, and the experience of those who rode on her across the Atlantic to New York, where she finished her maiden voyage the other day, testifies that their object was attained. Her sea speed is high and steady, although not the highest, being 21 knots per hour. The time of crossing was 5 days 16 hours and 42 minutes. Notwithstanding her vast bulk she obeys her helm readily, the pilot who took her into New York saying "she handles like a catboat." Nevertheless, some very careful work was necessary in docking to prevent her crushing an extension of the company's pier, that had to be enlarged for accommodation.

The Olympic is distinguished not only by her dimensions, but by a unique arrangement of machinery. She has three propellers—one in the middle below the rudder and driven by turbine engines, the other two, one on each side and called wing propellers, being driven by reciprocating engines. The steam is first used by the engines operating the wing screws and later by the turbines moving the center screw. Her indicated horse-power is 46,000, which, it is said, insures maintenance of the speed of 21 knots at sea. Vibration and oscillation are said to be absent.

Some of the other notable data of this remarkable craft reveals that she has 11 steel decks. Width over all, 92 feet 6 inches. Height from keel to top of captain's house, very nearly 106 feet. Height from keel to top of funnels, 173 feet. There are four funnels, the rear one being a ventilator. Watertight bulkheads 15, besides a double bottom. Passenger capacity 2500. Crew 860, officers and men. There are 471 men in the steward's department and 322 in the engine and fire room alone. The largest steel beam used in construction is 92 feet long; the largest plates 36 feet long. The rudder weighs 100 tons, as much as a large locomotive; the turbine propellers 22 tons, the wing propellers 38 tons each, and the anchors 15½ tons each. Each link in the anchor chain weighs 175 pounds. There are three passenger elevators for first-class passengers and one for second-class. The main dining-room is 114x90 feet, seating 532 persons; the second-class seats 400, and the third 473. Every comfort is provided, with space for playing games requiring physical exercise, and there is a swimming pool 32 feet long and 13 feet wide. The ship

was built at Belfast, Ireland, where the Titanic, her sister craft of similar dimensions and general equipment, is being finished. One of her owners is quoted as saying that the operating expenses for a voyage across the ocean and back are about \$175,000. Her cost to build was between \$8,000,000 and \$9,000,000, and including fittings, furniture, etc., nearly \$10,000,000.

It would seem almost impracticable to produce any vessel greater or more commodious than this monstrous steamship, but it is understood that a 50,000-ton steamer will be built by one of the German companies, also for transatlantic service. Until she appears the two great White Star liners will enjoy the ephemeral distinction of being the largest of their kind.

TO DEVELOP FOREIGN TRADE IN MACHINERY.

Mr. F. A. Vanderlip, president of the National City Bank of New York, who has been reported as being interested in the organization of the Allied Machinery Co. of America, formed for the purpose of developing the export trade of the United States in machinery, in a letter to the MANUFACTURERS RECORD under date of June 20 writes that he encloses information which he says is a very good exposition of the purposes and plans of the company. According to the data sent by Mr. Vanderlip, which confirms much that has already been published about the company, the formation of this company had its inspiration in the results of the work of Capt. G. L. Carden, U. S. Revenue Cutter Service, who was detailed by the Department of Commerce and Labor in 1908 to visit the European manufacturing centers and make a report on the tool trade and its bearing on American manufacturing interests in that line. Captain Carden's reports contained much valuable information on the conditions of the machine and tool trade in general and gave reasons why more use was not made of American products. He found that the merit of American tools was appreciated, and, in his belief, one great reason for the comparatively limited purchase of American machine tools was lack of facilities in properly financing the business of the export trade in these lines. For this reason the American agencies were at a disadvantage, and the foreign banks naturally encouraged the selling of tools by companies in which their interests were more or less involved. American agents of the manufacturers have preferred not to make sales where loans or long credits are required, but it is believed that the connections of the Allied Machinery Co. with the National City Bank will enable it to handle this business satisfactorily. The president of the company is Samuel McRoberts, who is also a vice-president of the National City Bank of New York. He and Captain Carden, the general manager, have gone to Paris to open the first agency.

The object aimed to be attained is the establishment of a successful extension of the trade in foreign countries of American machinery and machine tools. The company is practically an export association. A considerable number of machine-building concerns have made arrangements for the handling of their products through its agencies. It is expected that a profitable business will result for the bank in handling the bills of lading, mercantile paper, loans, etc., of the company when its agencies become well established, and that, having this kind of financial backing, the Allied

Machinery Co. will largely aid in developing our machinery export trade. The activity of the officials of the National City Bank of New York in this enterprise indicates that they realize that the time has come for the great financial interests of the United States to assist in building up our exports of manufactured products.

WHAT GOOD ROADS WOULD DO.

A Southern tourist who is motoring through New England wrote under date of June 23 from Springfield, Mass., to the MANUFACTURERS RECORD as follows:

As I stood at the hotel entrance here late this afternoon the automobiles began arriving from their day's run down the line. I noticed cars from Minnesota, Alabama, Maryland, Rhode Island and New York, all inside of 15 minutes. The garages in each town visited so far are filled to overflowing every night by the crowd of machines, and in some cases they have to line them up in the street over night on account of not having room inside. The hotels are crowded, although the season doesn't fairly open till July 1. At Waterbury we registered at 4.30 in the afternoon, and at 6.30, when I looked over the book to see if anyone had arrived that I know, there had been added over two and a half pages, and they were still coming every few minutes.

Do you know (of course you do—you have studied it so fully) this means something besides scenery and climate and hotels? It means the drawing-card is the network of good roads. Mrs. ——— remarked today: "My! What it would mean to the South to have these people down our way in the winter!" It would simply mean millions of dollars as the first result, and no one can compute the final benefits.

As the MANUFACTURERS RECORD has repeatedly stated, there is more reason why thousands of motorists from the North and West should seek the South in the winter time than there is why people from other sections should motor through New England in the summer time. But New England has provided magnificent roads, roads of superb construction, designed to attract the motorist as well as to develop the possibilities of local travel by New England people themselves. New England has not only spent money to build good roads, but it has spent money to maintain good roads. It is folly to build roads if they are not to be maintained. It is folly to waste money on bad roads. There are in Maryland, as in other parts of the South, many illustrations of wasted money in road construction. While Maryland is aggressively building roads, a good deal of the work is badly done, and in some cases a new road is scarcely opened to travel before faulty construction results in its being cut into ruts and holes. Unless great care is exercised the same condition will prevail in the South. If good roads are to be built, they must be maintained, and in the building and maintenance of good roads it is of prime importance that the job should not be given to broken-down politicians or to people without training merely for political influence. The South will spend its money in vain, and worse than in vain, if it permits the political machine to control the machinery of road building.

BACK TO THE SOIL.

Mr. W. I. Tompkins of the Massillon Bridge & Structural Co., Massillon, O., in a letter to the MANUFACTURERS RECORD, writes:

Under even date I am sending in the subscription of this company to your paper. I am personally interested in the South and its development, and should be very glad to receive such information as you can give me as to the opportunities, progress, and so forth, of the various sections of the South. In the course of a few years, maybe sooner, it is my plan to escape from the thralldom

of office life and follow hundreds of other men in like case "back to the soil." Please provide me with such assistance to an understanding of the real conditions as you can.

Mr. Tompkins represents a type of business men whose name is becoming legion, who are anxious to get away, as he says, from the thrall of office life and get back to country life. The pendulum which has been swinging from the country to the city is likely soon to swing the other way. The development of improved conditions in the country, the building of better roads, the ability to utilize mechanical power on the farm, the automobile and the auto truck, are all combining to make conditions for country living infinitely better than in the past.

THE SOUTH'S OPPORTUNITY IN THE CONGRESS OF APPLIED CHEMISTRY.

Mr. Charles Catlett, chemist and geologist, of Staunton, Va., writes to the MANUFACTURERS RECORD:

I desire to second, with all the earnestness in my power, your editorial in regard to the need of using the utmost effort to direct the attention of the members of the International Congress of Applied Chemistry to the opportunities presented in the Southern States. I have no hesitation in saying that no event in years has been so fraught with valuable possibilities for our section.

No man ever does anything by himself, but he may be an essential factor, and he may be the trigger that starts great movements and may guide and direct them. In the same way, no art, science or profession stands alone, but is dependent in a greater or less degree upon many others. But there are conditions under which the value of one or the other predominates.

It is hard to think of an industrial development, even of the crudest character, which is not dependent in some degree on chemical forces, and as it rises higher in the scale the greater is its dependence upon chemical knowledge and skill. The progress of any section in the arts and sciences, and, indeed, in civilization, may well be measured by the extent to which it uses industrial chemistry.

As rapid as has been the development in the South, it is still, on the whole, a producer of crude products, and the return is insignificant as compared with what it would be if the products were refined and fashioned to a high degree before distribution.

The cotton seed is but typical of its production of a product which is not grown in the rest of our great country, and there are many other similar products (among them the peanut) which are destined to great development. The development and handling of new and unusual fibers, material for paper making, the development of the wonderful products of the pine, the concentration and smelting of low-grade ores, the use of the waste product from coke ovens—particularly the by-products of the retort ovens, the successful handling of low-grade phosphate, the more extensive local development and refining of petroleum products—all are subjects that are destined to great development and to bring great profit to those who devote themselves to them.

It has been said that the production of sulphuric acid is a fair measure of the industrial development of any country. Many of the fertilizer works scattered through the South are producers of sulphuric acid, which is used in the comparatively crude process of the manufacture of super-phosphates. It is inevitable that in time there will spring up around these factories other chemical industries using sulphuric acid as a basis.

The South can make no mistake in an effort to get the members of the congress to visit that section and to carry with them to all parts of the world knowledge of the opportunities which await the industrial chemist in that favored land.

No man of science who has given practical study to the vast natural resources of the South can doubt for a moment the wonderful material possibilities in the full application of chemistry to many of those resources. No man of science who, like Mr. Catlett, has been engaged in the development of Southern resources can fail to become a trigger in the movement to induce

the thousand foreign members of the International Congress of Applied Chemistry, which will meet in this country in the fall of 1912, to visit the South, probably the most promising region on the globe for men of their profession. But the triggers will be pulled in vain, as far as the great mass of the visitors are concerned, unless there shall be ammunition. Farsighted individuals can do little without the backing of men of large affairs in a position to plan and carry out a definite program that will attract the foreign chemists to the South. A few of them, already fairly well acquainted with the prospect, will undoubtedly make trips on their own initiative to certain localities, but what is wanted is a visit of the congress as a body to many parts of the South. The most practical means to bring that about would be for the men who have at stake the exploitation of mineral and other resources to arrange for a special train upon which the visitors shall make a Southern tour as their guests and the guests of communities included in the itinerary. Such a tour will require a considerable sum of money to make it a success. But that money will be well spent in world-wide advertisement of the South. It will be returned a hundred-fold. No time should be lost in getting the fund together.

It is gratifying to know that Congressman Joseph E. Ransdell of Louisiana, always on the alert to advance the material interests of his State and of the whole South, has written a strong letter to Mr. Robert Ewing of New Orleans, referring to the article in the MANUFACTURERS RECORD, urging him to lose no time in bringing about organization of public opinion in Louisiana to induce the chemists to visit that State. Congressman Ransdell says:

It is understood that, in the preparations for the congress, it is proposed to substitute excursions to the mineral-producing regions of the country in place of the sumptuous social functions which characterized the last congress, and many letters have been received from abroad urging this course. It is understood that a committee is already actively planning these excursions, but during the brief time when these chemical manufacturers will be together it is manifestly impossible for them to visit more than a few selected sections of the United States.

Great pressure is being brought upon the executive committee to have the congress inspect the mineral resources of the Western States. I, therefore, call your most earnest attention to the possibility of inducing these chemical manufacturing men to establish many lines of chemical manufacturing within the State of Louisiana. It is expected that more than 4000 chemical manufacturers and their assistants will take part in this congress, and it is not too much to hope that they may be induced to visit Louisiana. As a practical tour of the State, I would suggest that if they can be persuaded to go South, it should be arranged that they should enter Louisiana at Shreveport, and there study the greatest natural gas field in the world, together with its rich oil supply, and also have demonstrated to them the ease with which bauxite, manganese, zinc, etc., can be brought from Arkansas to Shreveport; that they should then visit the limestone deposits of Winnfield and the enormous salt and gypsum deposits at Pine Prairie, near Alexandria, and then proceed to Lake Charles and the sulphur mines, which, as you know, control the trade of the world. They should then visit the salt mines at Avery's Island and Petite Anse, and continue to New Orleans and the oil refineries at Baton Rouge, returning North by way of Alabama and Georgia, and reviewing the power developments of the Piedmont plateau.

I am sure the proverbial hospitality of the South can be reckoned on for banquets at Shreveport, Lake Charles, New Orleans and Baton Rouge, and it is believed that this will be the chief expense to which the citizens of Louisiana would be put in this matter. The most important immediate service is the organization of local committees, on which should be included Dr. Metz and Dr. Coates, already members of the organizing committee

tee of the congress, to urge upon the officers of the congress this trip to the South, and to see that proper permission is obtained for inspection of our various mineral resources and for explaining the great advantages of Louisiana for chemical manufacturing. For direct results such a visit would be of importance comparable with an international exposition in our midst, and it is not too much to expect that the chemical manufacturing, of which so much has been said, should become an immediate feature of Louisiana's growth.

The wise suggestions of Congressman Ransdell should be speedily adopted in Louisiana, as well as in other States to which they apply.

A MILLION-DOLLAR COTTON MILL FOR ST. LOUIS.

There is a persistent rumor in St. Louis that a million-dollar cotton mill is to be established in that city. There are already in that city two mills with an aggregate capital of \$325,000. Missouri is increasing its annual production of cotton, and the location of St. Louis, both as an assembling point for the raw material and as a distributing center for the finished goods, is so advantageous that it is rather surprising that the textile industry there has not assumed larger proportions long ago. As it is, the 38,576 spindles in Missouri mills are consuming each year something less than one-third as much cotton as Missouri raises. Between August 31, 1906, and August 31, 1910, the number of spindles in Missouri increased from 14,016 to 38,576. The crop of cotton in Missouri in 1905 was 42,730 bales of 500 pounds each and the crop in 1909 was 45,141 bales. In the meantime the possibilities in cotton growing in 12 southeastern counties in the State were shown in the crop of 54,358 bales in 1906 and the crop of 61,907 bales in 1908. In 1909 Missouri produced 23,742,660 pounds of cotton fiber, valued at \$5,229,001. Of the total, Dunklin county produced 11,230,000 pounds. In the year ended August 31, 1910, Missouri mills consumed 6,299,393 pounds of cotton. It is thus seen that comparatively little of Missouri-grown cotton goes to St. Louis, but Commissioner J. C. A. Hiller of the State Bureau of Labor Statistics is convinced that in cotton mills is a great future for Missouri. In a preliminary portion of his valuable Red Book for 1910 Commissioner Hiller points to the vast undeveloped water-powers of the Ozark region as one of the reasons for the development of the textile industry in the State, which he believes ought to absorb all the raw cotton of Texas, Oklahoma, Arkansas, Tennessee, Louisiana, Mississippi, Alabama and Kentucky. That estimate is an enthusiastic one and may never be realized. But the facts here set forth lend stability to the suggestion that St. Louis may in the not distant future have a cotton mill with more spindles than are now operating in the State.

VIRGINIA FACTORIES.

In the five years between 1904 and 1909 the capital invested in factories in Virginia increased from \$147,989,000 to \$216,392,000, or 46 per cent., and the value of their products from \$148,857,000 to \$219,794,000, or 48 per cent. The average number of wage-earners increased from 80,285 to 105,676, or 32 per cent. With the report of West Virginia still to be made, the capital invested in factories in the South increased in the five-year period from \$1,510,816,000 to \$2,252,441,000, or by \$741,625,000, equal to 49 per cent., and the value of their products from \$1,688,935,000 to \$2,373,091,000, or by \$684,156,000, equal to 40.5 per cent.

IRON-ORE DEVELOPMENTS IN TEXAS.

Active shipments from the iron-ore fields of Morris, Gregg and Cass counties in Texas are soon to be under way. As reported in the MANUFACTURERS RECORD last year, it has been necessary to build a branch railroad from Longview, Texas, on the Santa Fe system, to the ore fields, the terminus of the line for the present being at the new town of Ore City. The building of this road has been carried on by Col. L. P. Featherstone of Galveston and his associates, with a view to beginning the development of an ore field controlled by them in which it is estimated that there are over 100,000,000 tons of available brown ore of good grade. This ore is to be mined by steam shovels. Contracts have already been made for the shipment of about 200,000 tons from Port Bolivar, on Galveston Bay, to Eastern furnaces during the first year of operations. While it is expected to press the selling of this Texas ore to furnaces along the Atlantic seaboard, it is the expectation of Colonel Featherstone and those identified with him that this development will ultimately result in the building of a furnace and a steel plant at Port Bolivar. It is believed that at that point the Texas ore and Alabama or West Virginia coke can be brought together as foreign ores and West Virginia coking coal are brought together at Sparrows Point, Maryland, where the Maryland Steel Co. has its great furnace plant, steel-rail mill and shipyard. It is believed that the increasing demand for iron and steel products in Texas and the surrounding territory, and the ability to reach other points by water, will in the not distant future justify the establishment of a plant at Port Bolivar to make iron and steel and finished products. Experts of the highest standing have investigated these ore fields, and it was on their reports that the railroad construction necessary to reach them was undertaken and the plans laid for the shipment of ore to Port Bolivar.

With the rapid growth of Texas and the whole Southwest, and with the vast increase in trade and commerce which must follow the construction of the Isthmian Canal, it will be of very great benefit to the whole Southwest if a feasible proposition can be worked out for the building and profitable operation of a great steel plant in Texas. The contract already made for the shipment during the first year after the railroad is ready for operation of 200,000 tons of ore to Eastern furnaces is a fine start looking to the development of this great property.

TO BUILD A TOWN.

A contract for 1000 buildings, to include dwellings, churches, schools, theaters and other structures, recently made by the Consolidation Coal Co. of Baltimore, indicates the magnitude of the operations under way for the development of its great coal property of 100,000 acres in the Elkhorn field of Eastern Kentucky.

The contract was let to the Nichola Building Co. of Pittsburgh, and the contractors are to establish saw and planing mills, brick works and other shops for providing the material for the building of the houses and the macadamizing of several miles of streets and the building of a lake. It is also proposed to establish electric light and water plants.

This is probably the largest contract

for town building ever made by one company with one contracting company in this country. It is typical of the magnitude of development work under way in the South.

THE BALTIMORE & OHIO RAILROAD AND WEST VIRGINIA.

Mr. R. B. Naylor, secretary of the West Virginia Board of Trade, writing under date of June 24 to the MANUFACTURERS RECORD, says:

I have certainly read with deep interest the Baltimore & Ohio Railroad advertising in your valuable paper, and I am gratified indeed that the company has desired to enter upon a campaign of this character. There is no doubt whatever that it will be of great benefit to the State and will pay dividends many times over on its cost. Congratulating you on the progress of your great paper and the good work it is doing, I am.

WINSTON-SALEM.

Secretary J. S. Kuykendall of the Board of Trade of Winston-Salem, N. C., has compiled statistics showing that in the year ended June 1, 1911, the value of products of factories in the city was \$33,000,000, of which \$20,979,000 represented tobacco, \$1,650,000 knitting mills, \$1,375,000 woodworking, \$1,110,000 cotton mills, \$1,075,000 furniture and mirror plants, \$996,500 iron-working and sheet-metal plants, \$635,000 shoe and harness factories, \$577,000 wagon and vehicle factories and \$475,000 woolen mills. More than 130 factories, occupying 206 buildings in the city, employ 12,000 persons, and the capital invested in manufacturing plants during the year was \$1,189,000. Building operations represented an investment of \$1,379,979, compared with \$1,040,000 in the preceding year. Of such investments, \$436,183 were in 316 dwellings, \$371,000 in six office buildings and \$315,000 in factories. Between 1900 and 1910 the tax valuation of Winston-Salem increased from \$4,169,362 to \$11,609,918, the value of manufactured products from \$18,000,000 to \$30,000,000 and the jobbing and commission business from \$2,000,000 to \$7,000,000.

BIRMINGHAM.

The Chamber of Commerce of Birmingham, Ala., has published an attractive yearbook containing the reports of officers and chairmen of committees of that vigorous organization. In addition to many other valuable facts, Secretary Joseph R. Babb presents figures showing an increase between 1900 and 1910 in coal production in Alabama from 8,273,362 tons to 16,139,228 tons, in coke production from 2,110,837 tons to 3,231,399 tons, in pig-iron production from 1,155,631 tons to 1,939,147 tons and in steel production from 66,076 tons to 529,684 tons, in the number of cars handled from 455,631 to 840,396, in bank clearings at Birmingham from \$43,980,448 to \$130,248,529, in bank deposits at Birmingham from \$7,006,204 to \$22,923,828, in city assessment at Birmingham from \$14,727,707 to \$65,815,026 and in assessment in Jefferson county from \$34,712,668 to \$107,760,830. Between 1900 and 1910 the population of Jefferson county increased from 140,426 to 226,476.

MISSISSIPPI CITY FACTORIES.

Between 1904 and 1909, according to the Census Bureau, there were increases in the capital invested in factories at Meridian, Miss., from \$2,516,000 to \$3,816,000, or 52 per cent., and in the value of products from \$3,268,000 to \$4,237,000, or 30 per cent.; at Vicksburg, in value of products from \$1,888,000 to \$2,229,000, or 18 per cent., though there was a slight decrease in capital, from \$1,255,000 to \$1,236,000, or 2 per cent., and at Natchez in capital from \$632,000 to \$331,000, or 47 per cent., and in value of products from \$820,000 to \$1,114,000, or 36 per cent.

SOUTH CAROLINA CITY FACTORIES

Four South Carolina cities show through the Census Bureau substantial gains in manufactures between 1904 and 1909. There were increases at Columbia in the capital invested in factories from \$4,745,000 to \$7,705,000, or 62 per cent., and in the value of products from \$4,677,000 to \$5,872,000, or 26 per cent.; at Spartanburg in capital from \$2,869,000 to \$4,471,000, or 56 per cent., and in the value of products from \$2,128,000 to \$3,276,000, or 54 per cent., and at Charleston in capital from \$5,807,000 to \$6,573,000, or 13 per cent., and in value of products from \$6,007,000 to \$6,951,000, or 16 per cent. Value of products at Greenville increased from \$1,677,000 to \$2,142,000, or 28 per cent., though there was a decline of 6 per cent. in capital invested, from \$2,059,000 to \$1,930,000.

TEXAS' TALL BUILDINGS.

In 13 cities of Texas, according to the Commercial Secretaries' Association of the State, there are 168 buildings having a height of five stories or more. About 60 per cent. of these buildings have been erected in the past five years, and they include 52 at Dallas, 39 at Houston, 22 at San Antonio, 20 at Fort Worth, 11 at El Paso, 9 at Galveston, 5 at Waco, 4 at Beaumont, 2 at Austin and 1 each at Brownwood, San Angelo, Sherman and Temple. Dallas and Waco each has a building 22 stories high. This development as to tall buildings is one of the manifestations of city growth in Texas, marked also by an increase in the past decade of \$307,425,283 in the assessed value of city and town lots.

BIG CONTRACT FOR SWEDISH IRON ORE.

The Bethlehem Steel Co. wires the MANUFACTURERS RECORD that it has made a contract for Swedish ore, but that the quantity and price are private. Dispatches from Bethlehem to Philadelphia papers say that Charles M. Schwab, who is now in Europe, has made a contract for 3,000,000 tons of Swedish ore for the Bethlehem Steel Co. According to this report, the ore will be shipped from Sweden to Philadelphia and thence by rail 57 miles to Bethlehem. It is claimed that the ore, which runs from 55 to 68 per cent. metallic iron, will cost about 8½ cents per unit delivered at Philadelphia and 50 cents extra for freight to South Bethlehem.

THE COTTON MOVEMENT.

In his report for June 23 Col. Henry G. Hester, secretary of the New Orleans Cotton Exchange, shows that the amount of cotton brought into sight during 296 days of the present season was 11,436,853 bales, an increase over the same period last year of 1,333,403 bales. The net exports were 7,298,125 bales, an increase of 545,666 bales. The takings were, by Northern spinners, 1,962,934 bales, a decrease of 18,091 bales; by Southern spinners, 2,058,466 bales, a decrease of 82,775 bales.

Kansas City Industries.

In 902 factories in Kansas City, Mo., in 1909 there were invested \$42,728,579, and the value of their products was \$54,704,510, according to the census bureau. Four industries, embracing 35 per cent. of the factories, produced 39 per cent. of the total output. They were, with their products, printing and publishing, \$7,547,852; bakeries, \$5,616,784; flour and grist mills, \$4,506,655, and lumber and timber, \$3,398,154.

World's Cotton Crop.

The world's cotton crop in 1910 is estimated at 19,171,000 bales, averaging 500 pounds and valued at \$1,250,000,000.

[Charlotte (N. C.) Chronicle.]

WANT AGENCY FOR LOCAL CONCERN.

Mr. Paul C. Whitlock Receives Letter from Uruguay Business Man Who Had Been Interested Through Manufacturers Record.

From far-away Uruguay, the smallest of the South American republics, they are "Watching Charlotte Grow," and no doubt the boosting of the "Boosters' Club" has penetrated into the wind-swept plains of the little republic to a Charlotte man, asking for the establishment of an agency for a Charlotte product in that country.

Although the winter season is just beginning down there, the up-to-date business men are looking out for next summer, which will begin with them somewhere about next Christmas. The inquiry, which was delivered today to Mr. Paul Cameron Whitlock at his office in the Courthouse, asked if there was a Uruguay representative for an ice machine which the Uruguayans had, as they declared, seen advertised in the MANUFACTURERS RECORD.

Mr. Whitlock, who is an enthusiastic booster, was not a little pleased with the inquiry of the Uruguayans, and has decided that they are strictly up-to-date folks down there and worth watching.

[Of course, they are up-to-date folks, or they wouldn't be reading the MANUFACTURERS RECORD. Wherever civilization advances on the globe the MANUFACTURERS RECORD is to be found, or, rather, wherever the MANUFACTURERS RECORD is read there civilization advances.—Ed. MANUFACTURERS RECORD.]

SOUTH CAROLINA DRAINAGE.

Farmers Resorting to Tiles in Land Reclamation.

[Special Cor. Manufacturers Record.]

Charleston, S. C., June 15.

In your issue of June 1 there was published a very interesting article headed "South Carolina Drainage," from Roy G. Booker at Columbia, S. C. It was very gratifying to see Mr. Booker's article, and it is only to be hoped that it will attract the attention of all the farmers and induce them to pay more attention to the great subject of drainage than they have generally done in the past. Tile drainage for agricultural purposes was commenced as far back as 1880 in this township, and there is scarcely a farm on James Island and some of the other islands located in this vicinity which have not been to a considerable extent underdrained with tile drains.

One of our most enterprising planters and citizens, Mr. John S. Horlbeck, established a tile drain manufactory and manufactured a very fine quality of tiles for several years, which were distributed throughout our coastal belt to the progressive, up-to-date planters. On one plantation alone on James Island over 100,000 tiles have been laid, and within the past month several carloads of additional tiles have been ordered for the same place. Recently on this place 2500 feet of 15-inch tile drains have been ordered, and are now being placed.

In May, 1907, there was published in a magazine called *The Irrigation Age* a most interesting account of the development and extensive drainage work that had been and was being done in this township. This piece was published by Prof. C. G. Ellicott, the present head of drainage investigations, Department of Agriculture, Washington, D. C., after a visit to James Island, when he expressed great surprise at what had been done in that line. Since then there has been an enormous increase in the laying of tile drains throughout this section, and the results have been more satis-

factory than the most sanguine could have expected. The wonderful result of this tile drainage also has been illustrated at the "experimental farm" near Summerville, S. C., about 25 miles from Charleston, by the Clemson Agricultural College two years ago. This farm was located on a low, flat piece of crawfish pine land, from which the timber had been cut and removed. A thorough survey of same, with plans and specifications for the laying of tile drains, was prepared by the National Agricultural Department, and the same carefully followed out. The results in two years have exceeded the most sanguine expectations. With the unfavorable season, such as we have had (the most severe drought known for 30 years), the oat crop from this farm yielded between 40 and 50 bushels per acre, and under favorable conditions would probably have yielded 75. After 18 months on this raw land from 30 to 35 bushels of corn were harvested, and all other crops in proportion. This, mind you, is the result of tile drainage and proper cultivation on a piece of land that 18 months before would not have raised five bushels of corn or five bushels of oats to the acre.

The results of tile drainage have been so well known throughout this section of the State that the farmers generally are adopting the same as a necessity, and there are many thousands of acres, not only in this township, but along our coastal belt, which are tile-drained most thoroughly and successfully. If the farmers throughout the South and elsewhere could only realize the enormous advantages of the investment of tile drainage on all of their agricultural lands they would not hesitate to abandon hundreds of acres of undrained lands and concentrate their capital and efforts on a less acreage, requiring less labor and less capital and showing returns very far in excess in every way of the scattered crops over a large area not properly prepared.

We are glad to note that drain tile manufactories are to be established at different points in this State, as many of our farmers have been procuring their tiles from outside of the State, at considerable expense in the shape of freights, breakage, etc., and, judging from the excellent demand for tile and the awakening interest throughout the whole State in this important matter of underdrainage, they should meet with an abundant success.

Showing the Southeast.

The Southern Railway will make an attractive exhibit showing the agricultural, forest and mineral resources and manufactured products of the Southeast at the Appalachian Exposition to be held at Knoxville September 11 to October 1, 1911. This exhibit will contain handsome displays of cereals, cotton, tobacco, legumes, vegetables and fruits, and especial attention will be given to forest products and manufactured specimens of woods. The exhibit will show in a comprehensive way the possibilities and advantages of the Southeastern States, and should prove a powerful advertisement for the section, as large numbers of visitors from points outside the Southeast are expected at the exposition. At the same time the exhibit will serve the very useful purpose of calling the attention of the people of the South to the great opportunities which exist in their own country. This is a feature which the management of the Southern Railway considers of the highest importance, as nothing can have a more powerful effect in discouraging emigration from the South to less favored sections than a thorough knowledge of the South and the many reasons which make this the best section of the country in which to live and prosper,

Cotton-Mill Interests of New England--I.

LESSONS TO BE LEARNED BY THE SOUTH.

By GEORGE FRENCH of Boston.

Ask any well-informed man about the cotton-cloth industry in New England, and he will condense his opinion into the one word, "rotten." This word will quite adequately describe the feelings of cotton manufacturers as well as the condition of the industry. But here in New England the cotton manufacturer is prepared for just the conditions that now prevail, and while he prefers more activity, prefers to run his mills on full time and with orders ahead; prefers to have the market pushing him, and, paying his prices, he is inclined to be philosophical. He is convinced that there will be a turn for the better, and soon. He knows that there are no stocks to speak of, and he knows that he will soon know what the new cotton crop is to be. These are the two factors that hearten him. When the new crop can be predicated, whether it is to be large or small, whether the price of cotton is to be low or high, he knows that the knowledge will give the market something to go upon, and that there must be buying, and therefore there must be manufacturing. It is just now a real comfort to the cotton manufacturer to visit Boston or New York and look about among the big stores that handle cotton-piece goods in a large way. He knows just how to size up the market. He looks along the sections devoted to piece goods, and notes how the bolts of cloth are stored in the bays on the shelves. If the market is good, the bolts of cloth will be packed in the bays of the shelving with the ends toward the observer and the space all filled. If there is a slow but steady selling market, the bolts will be slewed around so as to fill the space with fewer pieces, and there will be vacancies here and there where an extra bolt might be slid in. If the market is bad, the bolts are piled with their lengths toward the observer and only two high. This is, the experts say, an infallible method for testing the condition of the market. Now the bolts of cotton-piece goods are piled in the bays on the store shelves broadside out and but two high, showing that the store is carrying just as small a stock as possible. When the bolts are put in the bays obliquely and are piled three high, the mill men will begin to look about for raw cotton, tune up the mills, and probably pay a visit to the selling house to discuss matters of policy and styles of goods. When the bolts are packed end-on to the locker and the bays are all filled up, he knows he does not have to worry about the market. The retailer has saved him that trouble.

This is indicative of the business in New England. It takes account of every smallest circumstance that has any perceptible influence upon the trade. I was talking with one of the leading mill treasurers the other day, and he was recalling his early days in the mill, where he worked from the lowest position up through all the grades to superintendent, and then got drafted into the office as treasurer. I remarked that that seemed the natural road to progress. "Yes," he said; "up to the superintendency. I was made treasurer because I can borrow money from the banks. I always could borrow money. I was as well qualified to fill this office when I became a second-hand as I was when I was appointed. All of my mill experience was lost." But I think he was wrong. I do not believe that any man can

manage the finances of a big cotton mill successfully unless he has had some mill experience, and I think that the history of the New England mills will bear me out. If it were possible to say that one man dominates the cotton-manufacturing situation in New England, there would be many to assert that that man is Walter H. Langshaw of the Dartmouth Mills, New Bedford, and he started as boss of two tip carts working in the mill yard. Many of the men who have been in control for a long series of years are graduates from the mills. That condition may not be as evident in the future, as the textile schools are now furnishing many of the executive heads of mill departments. Not long ago a teamster drove into a mill yard with a load of beams. It began to rain, and after a few minutes an overseer of spinning appeared and ordered the teamster to cover "them beams" or drive his load under some shelter. It was none of the overseer's affairs. The teamster was not subject to his orders. But the overseer was a stockholder! This illustrates one of the sources of the power to earn money possessed by the New England mills.

The stock of the mills of New England is usually held pretty closely by a small number of stockholders. It is virtually never on the market. It is mostly handled by brokers who are in very intimate relations with the mills, and if there are shares of any of the paying mills thrown on the market the brokers see to it that men who are in close sympathy with the mill in question have the first opportunity to take up the vagrant shares. An analysis of the ownership of the 111 mills in Fall River, for example, would be most illuminating and would explain much that puzzles people in other sections of the country about New England mills. You meet a man in Fall River who has been fairly prosperous or who has inherited money, and you are soon likely to learn that he is interested in a mill, or two mills, or it may be in a dozen mills. The owners of one of the local newspapers in Fall River have a quarter of a million in mill stocks, and one of them is personally concerned with the management of several mills. These men have owned that paper since it was established, 50 years ago, and personally manage it now. Meet a Fall River mill president, and you will presently learn, if you are a bit curious, that he is on the directory of several other mills that make the same goods his mill does, and perhaps a director in a loom works and a thread mill. It would be difficult to find a mill whose ownership is not thus woven into the general web of the cotton business of Fall River. There are 45 corporations owning and operating the 111 mills of Fall River, and they are all dovetailed together in ownership and in finance and in operating policy. Many of the men who are the vital factors in these mills were born to the business, and their fathers were also born to the business. In Fall River there are now about 120,000 people, and 33,000 of them are mill operatives. Of the 87,000 others, a very large proportion of the men are interested in some line of work or business that is shackled to the cotton-mill interests. In Fall River and in New Bedford and the other mill cities and towns the men think in terms of cotton, and have been thinking in terms

of cotton ever since the little water-power tempted Col. Joseph Durfee to build a cotton mill on the Quequechan a hundred years ago.

The fine-cotton manufacturing in New Bedford began after the failure of the whale-fishing industry. There were many large fortunes made in that business, and the men who owned the whalers were accustomed to handle their own money. When whaling gave out the New Bedford men with money put much of it into the Fall River mills before it occurred to them that it would be well to build some mills at home. The mills of Lowell owe their origin, in some sense, to the failure of the coasting trade the men of Lowell and Salem had been engaged in and the diversion of their capital from the ocean to cotton mills. In the other mill towns, where there is not the distinct specialization, the mills each owe their existence to similar causes that have operated to establish industries in other New England manufacturing towns. In most cases they grew up around some pregnant personality.

In New England we are but recently beginning to feel the same developmental force that has created nearly all of the manufacturing in the West and South. Here we have grown because of the growth of our men and the general industrial conditions. Most of our mills are evolutions. Most of them began small and were the direct outgrowth of the genius or persistent industry of one man. As business grew and the country developed these small mills were called upon for more and more goods, and the one man who began them drew around him larger and larger companies of men whom he trained in his own ways. His sons came into the business, his daughters' husbands, and later his grandsons and his grand-nephews, and these drew others related by ties of consanguinity or otherwise. The traces of this origin are found in most of the big businesses of New England, though in some of them the traces are traces only and the family tradition is not very significant, except as a memory. But whatever may be the recent history of our big industries, nearly all of them came into prominence in this way. In cotton this is more marked than in any other line, and the cotton industry is now more significantly in the control of what may be called the hereditary element than any other. This is not to be taken to mean that the members of the hereditary families are in the majority of cases still in control. That is not true. But where the traditional name is not now potent in mill management there is generally some man who is truly the product of the original family, who was brought up and trained in the mill.

This element of personal efficiency, the result of continued and concentrated breeding and training into the family industry, is, it seems to me, the most significant and controlling distinctive element in the New England cotton-manufacturing situation. The men who control are not only trained for the work; they are born and bred for it. A mill treasurer said to me the other day, in response to an inquiry about a certain condition in his city: "I am a new man in the business. I have been in it only about 10 years." In most lines of manufacture a man who has been in it 10 years would consider himself quite a veteran and would be inclined to patronize beginners of three or five years' experience. But in the New England cotton-manufacturing business this man will die a beginner, and his sons will be in the grade of new men all their lives if they happen to follow him in the business. This tendency has been tempered by the insistent de-

mand for efficiency and the modern ideas regarding financial management. All along the history of cotton manufacturing in New England there has shown that sharply distinctive New England trait that has, in the last analysis, disregarded family in favor of efficiency, and we see in the places of absolute control in many of the mills men who have come up from operatives, or perhaps come in from some other business as the husbands of the daughters of the millowners. But they bring the hereditary element with them, and are usually known as parts of the oligarchy of family.

From this well-ripened and carefully-nourished bulb of family initiative and efficiency, the result of generations of breeding and careful cultivation, most of the New England cotton mills have come, like the small bulbs that are bred off of the parent in plant life. In the study of this condition is to be found whatever secret there is in the wonderful dominance and continued high rate of prosperity enjoyed by those mills. When it comes to the making of 20 yards of 30-inch cotton cloth from one pound of spun thread, it means that there is a sort of skill involved that is not taught in a few months, and when it comes to the question of making this cloth and selling it at a price that enables the mill to make large dividends year after year during the whole life of generation after generation, it means that the experience and training of more than one generation of managerial talent is made evident.

Here in New England exists the only considerable field for manufacturing in which this peculiar element of breeding lies at the base of the business. In the West and in the South, where manufacturing has taken on such wonderful importance, the mills are established as financial enterprises. They are the product of the tremendously enlarged markets. The demand far outgrew the New England facilities, and the enterprise of these newer manufacturing sections had outgrown the working of the land. While the New England cotton mill is built around the efficiency of men, the mills of the South are built around the efficiency of capital and circumstance. This fact is more evident in the iron industries of the West, which have stolen a great proportion of that business away from New England. They have been established by capital, and much of it came from New England, and they have had to draw their men from New England. They have created opportunity and have given it the life of the most accomplished of financial management. The major element behind these businesses is money, whereas in New England it is, and always has been, men and initiative. The vital men, and the initiative that makes of a fiscal proposition a manufacturing success, still emanate from New England in just that proportion created by the lack of time for developing the human element in these other sections.

In this New England is playing the part in the development of the country she has always played. Since the landing of the Pilgrims she has been giving to the other sections of the country, and has given with eager good will. New England is now as deeply interested in the success of the Southern cotton mills as the people of that section are interested. It is a good place here to say this. New England has no jealousy in any other section. She feels the interest of the fond, and sometimes self-sacrificing, mother in all the developments of industry everywhere in the United States, and in most of them she has a very vital financial stake. Wherever the subject of cotton manufacturing is broached, the great part the

South is playing in its greater development is always spoken of with sympathy and admiration, and the prophecy that the South will ultimately attain to the great position she aspires to is freely made.

While it is not my intention to attempt to analyze, or even consider, the cotton-manufacturing situation in the South, it is very evident that any section of the country that assumes to attempt to develop itself along lines that have made another great mistake is a great mistake if it does not sympathetically study all the conditions of the success sought to be duplicated.

TO RE-ROLL RAILS IN TEXAS.

Plant Under Construction at San Jacinto.

[Special Cor. Manufacturers Record.]
Houston, Tex., June 19.

The battle of San Jacinto was the Waterloo of the Mexicans, for it was here that General Houston's forces broke the power of Santa Anna, and through the

Land Co., and is the owner of some 2800 acres of land. The property has a frontage of one and a half miles on the Houston ship channel, and extends to the Southern Pacific Railroad, three miles south. The land on the channel front lies some 40 feet above the water, and with a slope toward the ship channel from the railroad, which provides for ample drainage.

The development in hand is being made by the United States Iron & Steel Co. of Texas. This is an independent corporation, having no connection with the United States Steel Corporation. The present capitalization is \$150,000, fully paid up, which covers the cost of the first mill, now nearing completion. The plant under way consists of main building 60x200 feet, with lean-to 25x120, and boiler-house 35x65 feet. The plant will be a re-rolling rail mill, reconvertng old rails into smaller sections of rail, as well as manufacturing merchant iron.

Material is to be secured from all the railroads running into Houston, the major portion of which has heretofore been trans-

ported. Handling the product here, the freight charges two ways will be saved. The nearest competitive point on products of this kind is now Pittsburg. The railroad rate from Pittsburg to New York on finished steel is \$3.20 per ton; from New York to Galveston by water, \$3 per ton; from Galveston to Houston \$1.20, making a total of \$7.40 per ton, which will be saved to the consumers in this section.

The main building will contain four train rolls, three high, operated by 850-horse-power engine, with two reheating furnaces. Fuel oil will be used, which, at the price obtaining here, is cheaper than coal at Pittsburg, as has been demonstrated in the plant of the Fort Worth Rolling Mill.

The finishing department equipment consists of a 45-horse-power engine for operating hot-saw, straightening press, etc. Three 135-horse-power Erie boilers are being installed, which will be sufficient for the present purposes and for an eight-inch mill for making cotton ties, which is practically in this construction.

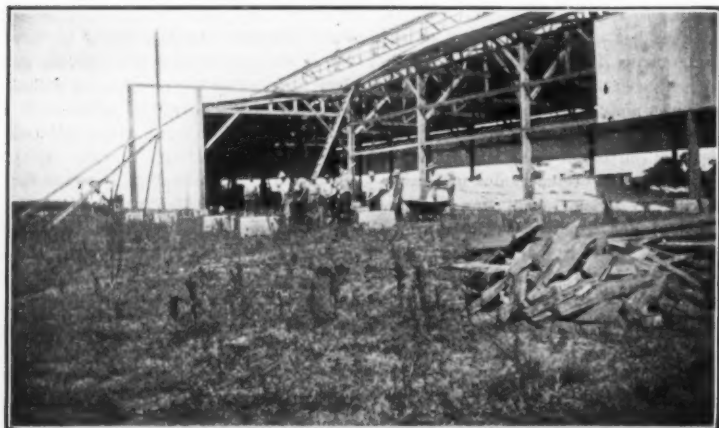
In the early future a 25-ton open-hearth furnace for utilizing the scrap will be constructed. The plant will be in operation by the 15th of October. Its capacity will be 160 tons per 24-hour day. All machinery has been purchased except some minor parts. The company is in the market for fire-brick, belting, packing, babbit and other rolling-mill supplies.

Transportation by water is already afforded, wharfage having been established on the 1200-foot frontage that the company owns on the ship channel. The location of the site is at a point just below the junction between the San Jacinto River and Old River, forming an ideal location for an industry of this sort. There are 22 feet of water at the company's wharf. Railroad transportation will be secured by the construction by the company of a spur track 16,000 feet long to connect with the Southern Pacific Railroad. This will be an advantage to the railroad as well as to

The company has put down test holes in every parcel bought, so that the ground has been thoroughly proven. In places a vein of 18 feet in thickness has been found. It is remarkably well located for easy and economical working. The iron ore is covered by sandy loam stripping from 18 inches to 7 feet in thickness, which will be removed with a Barnhardt steam shovel, and the ore is of such nature that it will be easily mined by shovel, with only occasional blasting.

Whenever these ore beds are utilized a smelter will be established on the 20-acre tract of the company at San Jacinto City. It is announced that the maximum cost of mining and delivering the ore to the water's edge of the ship channel at San Jacinto City will be \$1 per ton. This statement is made by the vice-president and general manager, J. William Barnes, who has had a practical experience in the iron and steel business at Pittsburg, and gives the figures as a result of ascertained facts.

The officers of the United States Iron & Steel Co. of Texas are: President, Mr. I.



BOILER-HOUSE UNDER CONSTRUCTION.



MAIN BUILDING U. S. IRON & STEEL CO.



ROLL BEDS FOR ROLLING MILL.



ASSEMBLING MACHINERY AT ROLLING MILL.

capture of that chieftain achieved the independence of the Texas Republic.

Hardly more than a stone's throw from this famed battlefield, some 20 miles from Houston, there is being built up an industry entirely new to the South, so that an interesting commingling of the historic and romantic with the modern and utilitarian is witnessed by the visitor to the San Jacinto of today.

Here factory buildings are looming up, and a busy camp of workmen is engaged in licking an industrial plant into shape. Quantities of heavy machinery are on trucks and platforms awaiting to be put in place, and here are the beginnings of an industrial center.

The development at hand is the first to be undertaken, but it is the intention to establish other plants here from time to time based on the advantages of the deep water and rail transportation. A local organization owns the San Jacinto City

port. Handling the product here, the freight charges two ways will be saved. The nearest competitive point on products of this kind is now Pittsburg. The railroad rate from Pittsburg to New York on finished steel is \$3.20 per ton; from New York to Galveston by water, \$3 per ton; from Galveston to Houston \$1.20, making a total of \$7.40 per ton, which will be saved to the consumers in this section.

The main building will contain four train rolls, three high, operated by 850-horse-power engine, with two reheating furnaces. Fuel oil will be used, which, at the price obtaining here, is cheaper than coal at Pittsburg, as has been demonstrated in the plant of the Fort Worth Rolling Mill.

The finishing department equipment consists of a 45-horse-power engine for operating hot-saw, straightening press, etc. Three 135-horse-power Erie boilers are being installed, which will be sufficient for

the company, as at the ship channel the railroad can have wharfage and trans-ship shell, sand, logs and gravel by rail instead of bringing them up the ship channel to the Main street wharves at Houston by barge, which would result in a great saving of time.

While the plant will use scrap iron exclusively at present, the company has bought more than 12,000,000 tons of brown hematite iron ore in Eastern Texas between Rusk and Jacksonville, in Cherokee county, for a reserve supply. Analyses show this ore runs from 47 to 52 per cent. metallic iron. The company has purchased the iron-ore lands in fee-simple. They adjoin the ore lands belonging to the State of Texas, and are in the vicinity of the large body of lands recently taken over by Col. L. P. Featherstone and associates, in the development of which some very remarkable activities are destined to be seen in Texas at an early date.

N. Willard, retired capitalist of New York; first vice-president and general manager, Mr. J. William Barnes of Pittsburg, Pa.; second vice-president, Col. N. L. Mills of Houston, Tex.; secretary and treasurer, Mr. J. B. Hine of Syracuse, N. Y.

It is stated that the company will begin operations without debts of any sort. All equipment has been paid for, and there is no bond issue on the plant and there is no stock for sale. ALBERT PHENIS.

Big Construction Contract Invited.

The Board of Public Works, Wm. W. Southgate, city engineer, Nashville, will receive bids until August 10 for a big construction contract. This contract will provide for about seven miles of circular brick trunk sewers from 30 to 111 inches in diameter, the work to include about 81,000 cubic yards of both earth and dock excavation and about 13,000,000 bricks.

Portland Cement Output More Than 12,000,000 Tons

The statistics of cement production in 1910, as reported by Ernest F. Burchard of the United States Geological Survey, indicate that the cement industry ranks within the first eight extractive industries in the United States, the value of the cement produced being exceeded only by the value of the coal, pig-iron, petroleum and gas, clay products, copper, gold and stone.

On the first of January, 1911, according to responses to telegraphic requests sent by the Survey to the larger cement companies, it was apparent that the Portland cement industry had made a new high record in 1910, and it was then estimated by Mr. Burchard that the production for the year might reach 75,000,000 barrels. Few other estimates ventured beyond this limit, and that it has been exceeded by more than half a million barrels, as is shown by the following statistics, will doubtless prove surprising to nearly everyone closely in touch with the cement industry.

The total quantity of Portland, natural and puzzolan cements produced in the United States during 1910 was 76,934,675 barrels valued at \$68,052,771. Compared with 1909, when the production was 66,689,715 barrels, valued at \$53,610,563, the year 1910 showed an increase of 10,244,960 barrels, or 15.3 per cent., in quantity, and of \$14,442,208, or 26.9 per cent., in value. The increase in quantity is one of the largest ever recorded, and the fact that the increase in value was proportionately higher indicates that trade conditions were slightly more satisfactory than during 1909.

The total production of Portland cement in the United States in 1910 as reported to the Geological Survey was 75,699,485 barrels, valued at \$67,506,479. This quantity reduced to tons is equivalent to 12,841,430 long tons, valued at \$5.26 a ton. Compared with the output of pig-iron for 1910, which was 27,298,545 long tons, having an estimated value of \$419,851,022, or \$15.38 a ton, the production of Portland cement approximates 47 per cent. of the quantity of pig-iron and 16 per cent. of its value. In 1909 the production of Portland cement was 64,991,431 barrels, valued at \$52,858,354; the output for 1910 therefore represents an increase in quantity of 10,708,054 barrels, or 16.5 per cent., and in value of \$14,648,125, or 27.7 per cent. The average price per barrel in 1910, according to the figures reported to the Survey, was a trifle less than 89.2 cents. This represents the value of the cement in bulk at the mills, including the labor cost of packing, but not the value of the sacks or barrels. This average price is 16.5 cents higher than the average price received for cement in the Lehigh district, 14.2 cents higher than that in the Eastern States, 1.8 cents lower than that in the Central States, 13.8 cents lower than that in the Western States, 4.8 cents lower than that in the South, and 48.8 cents lower than that on the Pacific coast. In the average price for the country is included the value of nearly 75,000 barrels of white Portland cement which sold for an average of \$2.86 a barrel.

The Portland cement plants in the East, including plants in Pennsylvania, New Jersey, New York and Massachusetts, produced 33,306,560 barrels in 1910, at an average price of 75 cents a barrel. The plants in the Central States—Ohio, Indiana, Michigan, Illinois, Iowa and Missouri—produced 22,617,000 barrels, at 91 cents. The plants in Kansas, Colorado, South Dakota, Utah, Arizona and Mon-

tana, included under "Western States," produced 7,672,369 barrels, at \$1.03. The Pacific coast plants, in California and Washington, produced 6,385,588 barrels, at \$1.38. The plants in the South, located in Maryland, Virginia, West Virginia, Kentucky, Tennessee, Georgia, Alabama, Oklahoma and Texas, produced 5,717,959 barrels, at 94 cents.

The following table gives the production of Portland cement by States in 1909 and 1910:

Production of Portland Cement in the United States in 1909 and 1910, by States.

States, 1909.	Produce- ing plants.	Quantity (barrels).	Value.
Pennsylvania.....	24	22,669,614	\$15,969,821
Indiana.....	6	7,026,081	5,331,468
Kansas.....	11	5,334,299	3,792,764
Illinois.....	5	4,241,392	3,388,667
New Jersey.....	3	4,046,322	2,813,162
Missouri.....	4	3,445,076	2,808,916
Michigan.....	12	3,212,751	2,619,259
California.....	6	4,455,714	6,785,764
Washington.....	2	2,139,884	1,859,169
New York.....	7	1,813,521	1,359,245
Ohio.....	1	1,265,944	1,117,338
Kentucky.....	1	1,435,021	1,519,267
West Virginia.....	2	1,019,328	1,024,317
Texas.....	1	663,679	923,947
Oklahoma.....	2	949,331	667,163
South Dakota.....	1	1,070,474	878,387
Colorado.....	1		
Arizona.....	1		
Utah.....	1		
1910.			
Pennsylvania.....	25	26,675,978	\$19,551,268
Indiana.....	6	7,219,190	6,487,506
Kansas.....	11	5,655,808	5,359,408
California.....	7	6,385,588	8,843,210
Washington.....	2	4,459,450	4,119,012
Illinois.....	5	4,455,589	3,858,088
New Jersey.....	3	4,184,698	3,067,265
Missouri.....	4	3,687,719	3,378,940
Michigan.....	12	2,445,884	2,207,230
New York.....	7	2,287,445	2,664,846
Texas.....	4	2,010,379	1,986,694
Oklahoma.....	2	1,527,670	1,279,717
Iowa.....	1	1,481,359	1,323,495
Kentucky.....	1	1,206,153	830,218
West Virginia.....	2	1,204,761	1,543,620
Ohio.....	5	811,800	1,006,960
Alabama.....	1		
Georgia.....	1		
Tennessee.....	1		
1910.			
108		64,991,431	\$52,858,354
110		75,699,485	\$67,506,479

The Lehigh district of Pennsylvania and New Jersey showed substantial increases in production of Portland cement in 1909 and 1910, following the first decrease ever recorded, which occurred in 1908. Twenty plants were operated in Pennsylvania and three in New Jersey. The production for 1910 was 26,284,411 barrels, valued at \$19,101,675, or 72.7 cents a barrel, which included the value of a small quantity of white Portland cement. This production exceeded the former high level of 1907 and represented an increase in quantity of 2,037,705 barrels and in value of \$2,260,295 over that of 1909. Notwithstanding the actual increases in the production in the Lehigh district in the last two years, the decrease in percentage of cement manufactured in this district, compared with the United States at large, still continues. In 1909, 22 plants reported production of Portland cement in the Lehigh district, and the average price per barrel, as reported to the Geological Survey, was nearly 69.5 cents.

In general trade conditions were slightly better than in 1909, as is shown by the higher average price received per barrel and the increased output, but prices were far from satisfactory, especially in the Lehigh district and in the Eastern States as a whole. Some of the larger plants reported no shut downs except those caused by accidents or the necessity for repairs, but many others were idle for intervals

ranging from one month to four or five months on account of full stockhouses and little demand for cement at certain seasons. Some plants took advantage of these conditions and made extensive alterations to power and grinding plants during the period of enforced idleness. In Michigan the plants that use marl dredged from lake bottoms are regularly shut down during the winter months, so that for those plants the normal manufacturing season is only 9 or 10 months long, but some plants were unable to maintain operations even for this short season.

The prices of Portland cement in 1910 ranged generally between 72.7 cents a barrel in the Lehigh district and \$1.38 on the Pacific coast. There was more or less fluctuation in price during the year, the highest level being reached during the building season. At the beginning and toward the close of 1910, when stockhouses were full, prices went down, especially at the close of the year, when a cut of 10 cents a barrel followed the reported dissolution of the Association of Licensed Cement Manufacturers. While the average price for the whole country increased from 81.3 cents in 1909 to nearly 89.2 cents in 1910, with corresponding increases in the eastern, central, southern and western districts, the average price in the Pacific coast States dropped from \$1.52 to \$1.38, a decrease of 14 cents a barrel, due, no doubt, to the advent of new mills in California, the Rocky Mountain States and Western Texas and to the increased capacity of other plants supplying the coast territory, where attractive prices have hitherto prevailed.

In 1910, 110 plants were reported as producing Portland cement, compared with 108 plants in 1909. The total number of rotary kilns in operation during the year was 900, compared with 930 in 1909. These kilns ranged in length from 40 to 160 feet. The kiln lengths were as follows: 40 to 60 feet, 264 kilns; 70 to 90 feet, 165 kilns; 100 feet, 77 kilns; 110 feet, 106 kilns; 120 feet, 71 kilns; 125 feet, 152 kilns; 135 feet, 6 kilns; 140 feet, 40 kilns; 150 feet, 16 kilns; 160 feet, 3 kilns. There were thus 471 kilns 100 feet or more in length, compared with 431 reported in 1909. According to these figures, the 125-foot kiln is the most popular size recently constructed. From the reports received it is apparent that the total annual kiln capacity of the country in 1910, allowing for reasonable loss of time for repairs, was about 97,670,000 barrels of Portland cement. The total production, 75,699,485 barrels, was therefore about 77 per cent. of the total capacity. The apparent average output per kiln in 1910 was about 84,077 barrels, compared with 69,388 barrels in 1909, the increase being due in part to the greater average length of kilns operating in 1910 and in part probably to the fact that the total loss of time due to shut-downs was a little less than in 1909.

Eight new plants began production of Portland cement in 1910, and two plants produced in 1910 that did not in 1909. As eight plants that produced in 1909 were idle in 1910, the net gain was two producing plants. The new plants were the Atlantic & Gulf Portland Cement Co., Ragland, Ala.; Riverside Portland Cement Co., Riverside, Cal.; Iowa Portland Cement Co., Des Moines, Iowa; Three Forks Portland Cement Co., Trident, Mont.; Allentown Portland Cement Co., Evansville, Pa.; Southwestern Portland Cement Co., El Paso, Tex.; Ogden Portland Cement Co., Bakers Spur, Utah, and Norfolk Portland Cement Corporation, Berkeley, Va. The Quincy plant of the Wolverine Portland Cement Co., Quincy, Mich., and the plant of the American Cement Co.

at Egypt, Pa., produced in 1910, but not in 1909. The plants that were idle in 1910, but not in 1909, were those of the United States Cement Co., Bedford, Ind.; Berkshire White Portland Cement Co., Clayton, Mass.; Egyptian Portland Cement Co., Fenton, Mich.; Alma Cement Co., Wellston, O.; Lehigh Portland Cement Co., Wellston, O.; York Portland Cement Co., New Boston, O.; Whitehall Portland Cement Co., Cementon, Pa., and Western Portland Cement Co., Yankton, S. Dak.

GERMAN SYNDICATE IN FLORIDA.

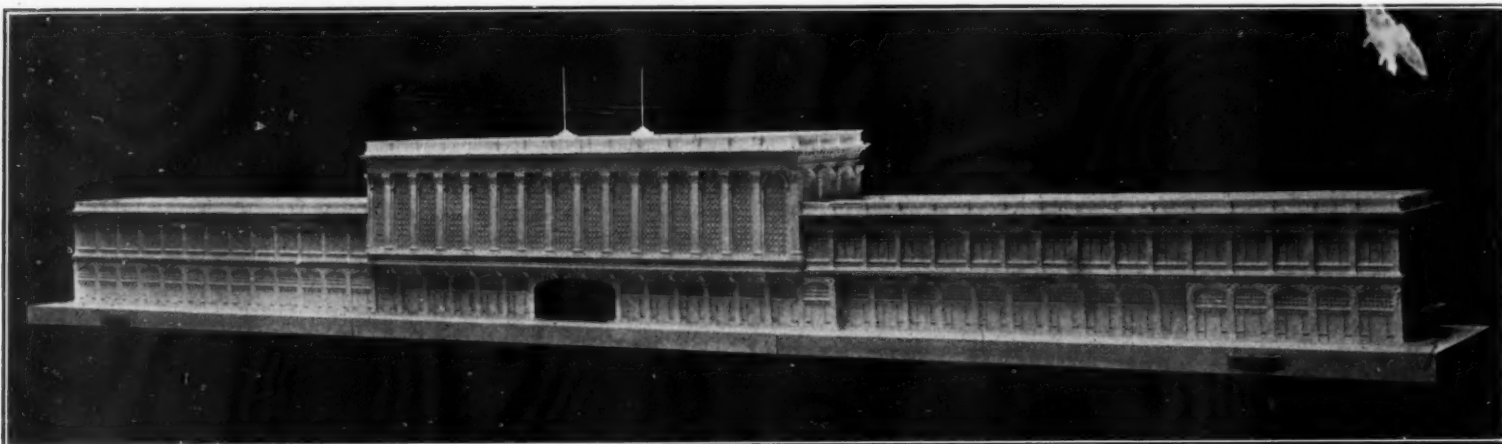
A Purchase for \$900,000 of 75,000 Acres of Land for Colonization.

Special dispatches from Tampa and Manatee, Fla., to the MANUFACTURERS RECORD report the sale of 75,000 acres of land to a German syndicate which should be of immense value to all of Florida, especially to the West Coast. This syndicate, of which Albert F. Rodewaldt, Berlin, is secretary, and Samuel Borchard, Tampa, is attorney, purchased this land, which is about 25 miles south of Tampa, part of it in Manatee and part in Hillsborough county, for \$900,000, or \$12 an acre. A considerable part of this land is covered with timber, and it is the intention of the buyers to develop turpentine and lumbering operations, but colonization of thrifty Germans on a large scale will be the most important feature of the work. The lands are reported as well located on the Seaboard Railway and Tampa Bay, and as admirably adaptable for colonization purposes, being in a great fruit and vegetable growing district. The names of some of the German people connected with the syndicate are reported as follows: Count Carlos Donhoff, Excellens, of Schloss Frederickstein, East Prussia; Dr. O. von Hentig, Excellens, of Berlin, Germany; Albert F. Rodewaldt, Berlin, Germany; H. Rame-lowd, Berlin, Germany.

The deal was made by Mr. C. S. Eliot of Tampa, who recently visited Germany for the purpose of completing the negotiations. Mr. C. H. Davis of Manatee controlled the properties sold. It is announced that \$250,000 will be expended by the purchasers for surveys and the building of roads and dwellings, and there is said to be some possibility of the sale resulting in the establishment of a steamer line between Tampa and Hamburg. Mr. Davis wires that the purchase was made on the basis of \$100,000 cash and the balance in one and two years.

The section of country tributary to Tampa is one of the most promising in the United States. Its possibilities are very great. It is quite certain that Tampa is destined to be a city of large population and of commanding trade, both at home and abroad. Presuming that the land reported as sold to the German syndicate is of good character and well located, as we are advised it is, this deal ought to prove profitable alike to the Germans and to Florida. Mr. Eliot, Mr. Davis and others who have been instrumental in bringing about so large a sale of land with arrangements for its colonization by thrifty Germans are to be congratulated, and Germans or any others who can buy large land properties in the South at the low figures now ruling are certainly to be congratulated on the prospect of great profits, for good lands in the South must largely enhance in value.

A report from Washington says that the H. C. Osborne Launch Building Co. of Havre de Grace, Md., has been given a contract to build for the Fifth District Lighthouse Service 10 sailboats, each 18 feet long, and a number of whaleboats. The former will cost \$1000 each and the latter \$1500 each.



MARKET-AUDITORIUM COMPANY'S PROPOSED BUILDING AT WHEELING.

Fireproof construction; steel, concrete and terra-cotta; arcade through center; 50 large market stalls; restaurant room at each end; cold-storage plant in basement; auditorium on second floor, reached by 4 runways, to seat 35,000 people; estimated cost, \$150,000; architect, Fred F. Faris of Wheeling.

Big Drainage Contracts.

About 300 miles of main and lateral dredge ditches, costing somewhat more than \$1,000,000, will be required for the improvement of drainage district No. 9 in Mississippi county, Arkansas, covering an area of 300 square miles. Plans for this job, which will require the work of 15 dipper dredges for about two years, have been completed by the Morgan Engineering Co. of Memphis, Tenn., and bids will probably be called for within the next 60 days. It is the intention of the engineers to divide the contract into several sections, leaving the various bidders to bid on one section or more, as they see fit. The same company will have plans and estimates completed in time for beginning during the fall work on the drainage of Cook's Slough drainage district in Jackson county, Arkansas.

Referring to the drainage of land in Bates county, Missouri, a dispatch from Rich Hill says:

"The Bates County Court has awarded contract for additional work on the Bates County Drainage Canal to Callahan Bros., Munn & Reise of Kansas City, Kans., at \$123,990, Stupp Bros. & Co. of St. Louis getting the contract for four steel bridges. The additional work consists of deepening the canal 10 feet and cutting four bends in the Marais des Cygnes River, the canal being 23 miles long. The work is to be completed in 18 months. Bonds are to be issued and sold by the county to pay for the work, and all benefited lands, comprising something like 40,000 acres, will be assessed about \$4 per acre to redeem the bonds. The canal will drain the Marais des Cygnes River Valley and reclaim one of the most fertile tracts in Missouri. In anticipation of this work being done, much bottom land has changed ownership during the last three months. This land has had an average 50 per cent. increase in value during the past three years."

To Make Glass Tumblers.

Glass tumblers will be manufactured at Glennova, W. Va., by the Wheeling Tumbler Co. of Wheeling. This company will erect a 50x100-foot fireproof building and install machinery costing \$8000 for a daily capacity of 1000 dozen tumblers. It will open building proposals on July 1 and machinery bids on August 15. H. W. Turner is the architect and construction engineer. G. O. Smith is president, Jos. H. Fox is vice-president, H. W. Turner is manager and O. G. Beans is secretary. The latter is receiving bids. All the officers are of Wheeling.

The National Paint, Oil and Varnish Association will meet at Richmond, Va., October 3-5.



NEW CONCRETE CONSTRUCTION HOTEL.

New Concrete Construction Hotel.

Illustrative of the wonderful progress of Oklahoma typical of the character of construction work done there is the Skirvin Hotel, a 10-story-and-basement reinforced-concrete building 75x140 feet, shown in the accompanying cut, and which is now nearing completion. This building will cost \$350,000, with heating, plumbing, refrigeration and vacuum cleaning. It is the third large fireproof hotel to be completed in Oklahoma City during the period of a year. The building was designed by Layton, Smith & Hawk of Oklahoma City, and erected by the Oklahoma City Construction Co. Work has been continuously in progress since May, 1910, and will be completed by August 1, 1911.

The frame is of reinforced concrete, beam and slab construction, with hooped columns. Malakoff—Fort Worth—brick face the exterior walls. Two shades, their "speckled" and a darker brick, were used,

giving a relief to the walls that is very pleasing to the eye. Exterior trimmings, which are rather ornamental, are of Alginate. The Broadway and 1st street entrances are very elaborately worked out in this adaptable material. All interior partitions above first floor are of three-inch gypsum block, an Oklahoma product manufactured by the United States Gypsum Co. The fire-escapes are inside the building, and consist of circular stairs in a fire-proof shaft.

Work was carried on under good conditions, the past winter having been open and dry. While erecting the structure a floor was run each week. Concrete was chuted in wooden troughs from a tower at the south center of the building. Brick work was not started until the roof slab had been run. Swinging scaffold operated by ratchet and drums, with cables running over sheaves in wood lookouts, were used successfully. At one time brick was laid on two floors at the same time on opposite sides of the building, the scaffold having been raised faster on one side of the building than on the other.

ENLARGING COTTON WAREHOUSE.

Expenditure of Half Million Dollars Reported.

It is reported that the Memphis (Tenn.) Warehouse Co. has completed plan for extending its warehouse and compress facilities at a cost of about \$500,000, practically doubling the present capacity of the plant. W. G. Turner, the company's manager, is stated to be awaiting the authority of the directors to begin the construction, which it is contemplated to complete by September, 1912. The Memphis Commercial-Appeal refers to the improvements as follows: "The new plans embrace an addition of one cotton compress, bringing the total number of compresses in the plant up to four, one of which is a high-density compress; an increase in the area of compress-room to about four times its present area; an increase in the cotton concentrating-room to about five times its present area; the addition of 45 new reinforced concrete warehouses, with a storage capacity of 1000 bales of flat cotton or 1500 bales of compressed cotton each, and approximately one and one-half miles of standard railroad track. When completed, the entire tract of 125 acres owned by the company will be completely taken up by the buildings, tracks, etc."

Selected Through Competition.

[Special Cor. Manufacturers Record.]

Raleigh, N. C., June 27.

The North Carolina School for the Feeble-Minded will be located in the suburbs of Kinston. The people of that place gave 1000 acres of land in the suburbs and free light and water for five years. Other very liberal offers were made by Lillington and Washington, and the Council of State thanked the towns for the great public spirit shown. The plan of competition for the location of public buildings has been followed by North Carolina for a long time, and has worked very well, indeed.

Contracts were let today for two new buildings at the North Carolina Agricultural and Mechanical College here; one, the animal husbandry building, which the State Board of Agriculture will erect, the contract price being \$30,000, the material to be concrete and brick. The other building will be a mess hall of one story and a basement, of concrete and brick, its dimensions being 120x140 feet.

FRED A. OLDS.

The paper of H. M. Byllesby of Chicago on the responsibilities of electrical engineers in making appraisals, presented to the annual convention of the American Institute of Electrical Engineers, has been published in pamphlet form.

Natural Gas in Oklahoma.

By CHARLES N. GOULD, State Geologist.

Natural gas is the best fuel with which nature has provided us. It is clean, easily handled and regulated, and is in all respects an ideal fuel. Happy is that community which possesses adequate supplies of natural gas.

Among the various States of the American Union there is none that shows a more promising future in this regard than does Oklahoma. I shall attempt to show that the supply of this very valuable fuel in the new State appears to be, for practical purposes, inexhaustible.

In Oklahoma, as in most other regions, natural gas is found associated with petroleum. While it is true that there are in the State a few gas wells in which the amount of petroleum produced is negligible, and there are some oil wells which produce but little gas, the fact remains that in at least 90 per cent. of the wells both substances are found. This is only what might be expected when the nature of the two products is understood. Petroleum and natural gas are but two manifestations of the same series of chemical compounds, one being gaseous, the other the liquid form. This being true, it is obvious that any discussion regarding the location of natural gas must necessarily include petroleum also.

The greater number of productive Oklahoma oil and gas areas lie in the northern part of the State. This is largely due to the fact that development began at the Kansas line and has moved southward, slowly and methodically. The first wells were drilled along the 96th meridian and in the shallow field, so-called, further east. At the present time the development has progressed about as far south as Muskogee and Okmulgee. No oil has as yet been found in the probable field south of the Canadian River, but there are geological reasons for believing that within the next few years, when development has progressed that far, some of the most productive pools in Oklahoma will be found in the region between Atoka and the Arkansas line. In fact, it is altogether probable that had development begun near Atoka, McAlester or Fort Smith, only the southern part of the Oklahoma field would have been developed today, and the Muskogee, Morris, Bartlesville and Glenn fields would have yet been undiscovered.

The possible oil field of Oklahoma lies west and south of the probable field, extending as a belt from the Kansas line south to the Arbuckle Mountains, passing around these mountains, and east. Oil or gas, or both, have been found at a number of points, namely, at Blackwell and Ponca, in the northern part of the State; at Madill and Wheeler, south of the Arbuckle Mountains, and at Lawton, Gotebo and Granite, near the Wichita Mountains. It is extremely probable that future development in this region will reveal the presence of a number of additional pools. The chances, however, for finding oil and gas in this region are not so good as in the region designated as the probable oil field.

There are five general regions in Oklahoma in which the chances are not good for finding oil and gas, namely, the centers of the four mountain regions and the great Redbeds area, which occupies central and western Oklahoma. The Ozark Mountain region, in the northeastern part of the State; the Ouachita Mountain region, in the southeastern part; the Arbuckles, in the south central part, and the Wichitas, in the southwestern, show no possibilities for oil or gas. In addition to these four doubtful areas, it is unlikely that oil or gas will ever be found in quantity any-

where in the Redbeds. At various times drilling has been done and a great amount of money has been spent in the Redbeds in the central and western counties. It has been estimated that during the last 10 years at least \$25,000 a year, or \$250,000 in all, has been spent in drilling holes in the Redbeds in the vain hope of finding oil or gas, and up to the present time not a dollar has ever come back.

How much natural gas is there in Oklahoma? The answer is easy. Nobody knows. All that we can say is that the deposits are enormous, but at the present time there are not sufficient data to enable us to estimate accurately their possible amount. Practically every oil well so far drilled in the State produces gas, while at the same time many of the strongest gas wells do not contain oil. The daily capacity of an Oklahoma gas well varies from a few cubic feet per day up to millions of cubic feet. The average-sized well in the Tulsa or Bartlesville region runs all the way from 1,000,000 to 10,000,000 cubic feet per day. Wells in various parts of the State have been reported to produce 40,000,000, 50,000,000 and even 60,000,000 cubic feet per day.

According to the statistics of the United States Geological Survey, there were, at the close of 1908, 474 gas wells in Oklahoma. This is probably not more than half the actual number now in existence. Gas wells are strong all along the 96th meridian from the Kansas line to Henryetta. Some of the strongest wells, with a capacity running up into the tens of millions of feet per day, are located in the Shallow field, the Morris field, the Bald Hill field and the Muskogee field, while other wells equally good are located at Wainwright, Pawhuska and in the Preston Pool. Smaller amounts have been found in dozens of localities scattered everywhere throughout the field.

Any estimate of the amount of gas actually in sight in Oklahoma is little better than a guess. There are no accurate data, and even an approximation may of necessity be misleading. Taking into account all known facts, however, and estimating as nearly as possible the amount from the various wells, including those now being utilized, those shut in and those going to waste, the amount of gas already discovered in Oklahoma should be somewhere between 1,500,000,000 and 3,000,000,000 cubic feet per day. A conservative approximation would probably be 2,000,000,000 cubic feet daily.

But if we attempt to go a step farther from a conjecture as to the amount of gas which may yet be discovered in Oklahoma, we are at once confronted with the inadequacy of language and the paucity of figures. Those of us who have traveled over the developed fields of Oklahoma, studying the problem from a scientific standpoint, believe that at the present time not one-fifth, or possibly not one-tenth, of the gas in those fields has yet been touched. In many cases only a single well to the square mile has been drilled in search of oil. Gas having been found, for which there is no demand, the entire territory has been condemned and the field abandoned. Possibly the well has been plugged, but most likely it still stands open, permitting the escape of gas.

It will be seen that not one-tenth of the probable gas field of the State has been developed. In the region south of Muskogee and Okmulgee there has been practically no drilling as yet, but this is a region in which the geologist believes that there should be vast untapped reserves of gas

and oil. Even the geologist, with his well-known inclination to estimate things in hundreds of millions, stands aghast before the unknown possibilities of the future development of the Oklahoma gas field.

Natural gas is now being utilized to a limited extent for manufacturing and domestic purposes in the region in which it is produced. Such towns as Bartlesville, Dewey, Cleveland, Collinsville, Mounds, Wagoner, Claremore, Morris, Poteau, Boynton, Wann, Blackwell, Chelsea, Bigheart, Pawhuska, Tancha, Ochelata, Ramona, Tulsa, Skiatook, Nowata, Talala, Lenapah, Sapulpa, Okmulgee, Muskogee, Ponca and Coweta use gas, produced usually within a few miles of the city, for lighting and heating purposes. In a number of cases gas is used for industrial purposes. For instance, Bartlesville has zinc smelters, Dewey has a Portland cement mill, and a number of towns in the gas fields have brick plants that use gas. A pipe line from the Tulsa-Glenn Pool region supplies Oklahoma City, Edmond, Guthrie, Chandler and Shawnee. Ardmore uses gas piped from the Wheeler field, 20 miles distant.

The price of fuel varies directly with the distance it has to be piped. In Tulsa and Bartlesville, to cite two examples, where the gas is produced near at hand, prices are about 10 cents per thousand cubic feet for domestic use and 2 to 4 cents for manufacturing purposes. Several towns in this region have advertised two-cent gas and one-and-one-half-cent gas for factories. In Oklahoma City, where the gas is piped over a hundred miles, the price is 25 cents per thousand for domestic use and 10 cents for factory use.

It is obviously impossible to accurately estimate the life of the oil and gas fields of Oklahoma. Ordinarily these substances are exhausted within a few years after the reservoir containing them has been tapped. It is well known that the life of the ordinary oil well or gas well does not usually exceed five years. Some of the first wells drilled in Pennsylvania in the late 60s are still producing. On the other hand, the famous Beaumont field, which was at one time the wonder of the world, is now practically exhausted. The Indiana gas field is nearly exhausted. Many of the first wells drilled in Southern Kansas and Northern Oklahoma have already ceased to produce oil or gas in paying quantities.

It must be remembered, however, that, as I have already stated, only a relatively small part of the oil and gas region of Oklahoma has ever been prospected, and a still smaller part developed. There is enough prospective territory untouched in Oklahoma to keep the drillers busy for the next 50 years. Counting 50 years more for the life of the last wells brought in, and assuming that the greater part of the gas will be utilized and not permitted to go to waste, we may approximate 100 years as the life of the oil and gas field of Oklahoma. This estimate is probably under rather than over the actual time limit.

As a conservative estimate, not to exceed 10 per cent., possibly not more than 5 per cent., of the gas so far discovered is now being utilized. Part of it is shut in waiting a chance for utilization, but much of it is going to waste. One cannot drive anywhere through the gas field of Northeastern Oklahoma without being shocked at the prodigal waste of fuel now going on. In hundreds of places gas is permitted to burn day and night without ceasing. Scores of wells are permitted to flow unchecked, and this priceless fuel is being dissipated into the air. A law which was passed by a recent Legislature, the object of which was to attempt to conserve the natural gas, has done much to check this waste, but in many sections it is yet more

honored in the breach than in the observance. At the present time in Oklahoma a vast amount, possibly hundreds of millions of cubic feet a day of the best fuel the world has ever known, is permitted to escape into the air.

In territorial days little attempt was made to save the gas. To cite but one instance out of a hundred: When gas was first encountered in Bartlesville it was permitted to escape unchecked. The roaring of the gas was so persistent that people in the town could not sleep at night, and so the gas was carried in pipes outside of the city limits, where it might escape without the noise disturbing the sleepers.

It is greatly to be regretted that some really effective plan has not been devised to curtail the prodigal waste of this valuable fuel which has been going on in Eastern Oklahoma for the past 10 years, and which is still in progress. For this there is no excuse except the cupidity of men. The well having been drilled, in search of oil, and gas having been encountered, for which there is no immediate demand, it is easier to pull the tools, letting the well stand open, permitting the escape of the gas, than it is to plug the well. In many cases, as the one above cited, a gas well with a capacity of many millions of cubic feet per day is permitted to flow unchecked in the hope that it will some day drill into oil. In scores of instances wells which produce 10 or 20 barrels of oil and say 5,000,000 or 10,000,000 cubic feet of gas a day are permitted to flow unchecked. The gas is all wasted to save the small amount of oil. When it is remembered that 6000 cubic feet of gas has a fuel value equivalent to a barrel of oil, it will be understood that 6,000,000 cubic feet of gas equals 1000 barrels of oil. So in the case cited the equivalent of 1000 barrels of oil is permitted to go to waste each day in order to save 10 or 20 barrels. For these reasons Oklahoma is day after day losing hundreds of thousands of dollars' worth of valuable fuel which should be saved for future generations. This waste is nothing short of criminal, and it is high time that the people of Oklahoma, as of other gas-producing States, were awakening to a realization of conditions.

One point should be clearly kept in mind, namely, that these fuels, once gone, are gone forever. You may take all the water from a well and the rainfall will restore the water. You may exhaust the fertility of the soil, but by careful cropping and fertilizing the fertility is renewed. You may cut down the forests, and new forest will grow, but when you take from the earth the minerals, the oil, the gas, the coal, contained therein, these minerals are never replaced.

How may this vast amount of fuel be best utilized? Oklahoma is rich in minerals. Few States surpass us either in variety or amount. But today these minerals lie dormant in our hills, and not one-half of 1 per cent. is being utilized. We in Oklahoma use Kansas brick, tile, cement and salt; Arkansas and Texas alike; Vermont marble; Scotch granite; Texas gypsum plaster; Indiana and Missouri limestone; Illinois glass sand, and asphalt from the oil refineries, and we pay the freight on all of it, although we have inexhaustible deposits of all these materials in our own hills. The reasons for importing these products are obvious. The other States have their mines and quarries opened already and their plants established, while we have not.

Oklahoma is the baby State. There are nearly 2,000,000 of us here, and we are all from somewhere. We came here of our own volition because we knew that Oklahoma had the makings of the grandest State of the Union. We understood when we

came that we were coming to a new State, and so we are willing to endure pioneer conditions just as long as necessary, but no longer. We are proud of the fact that no equal area that the sun shines upon has made such rapid advancement in the same length of time as has Oklahoma in the past five years, and we are yet only fairly started. Get out of the way and watch us grow, or, better still, cast your lot with us and help us grow.

We are trying to keep our gas at home. We need it. It is true that we have been wasting it about as fast as we could, but at the same time we don't want anyone to take any of it away. What we do want is to have factories located here that will utilize our fuel. We have a plenty and to spare. If the gas fields are ever exhausted, we have a few billion tons of coal to fall back on. (The United States Geological Survey says we have 75,000,000,000 tons.) But we are not worried about the gas failing for several years yet. But right in the gas fields, or within short piping distance, there are inexhaustible deposits of as good clay as that found in Ohio or New Jersey; of as fine glass sand as that of Illinois or Pennsylvania; of Portland cement rock as good as can be found anywhere in the world. There is also limestone for burning into lime; lead and zinc deposits among the most prolific on the continent, besides sandstone, marble, granite and asphalt, all in enormous quantities. A little farther away there are 123,000,000,000 tons of gypsum and salt water enough going to waste to make 100 earloads of salt a day.

We need these things developed. We must have them developed before Oklahoma comes to her own, and we believe that if we can keep our gas at home the development will come all the sooner. If the gas is piped out of the State, Oklahoma will derive very little benefit from it. If it is utilized at home, it means the establishment here of hundreds of industrial plants and factories and the opening of scores of mines and quarries, all of which go toward the development of our State.

Are we selfish? Perhaps so. Are we playing dog in the manger? We do not think so. What we are trying to do is to devise the most effective means of developing in the shortest possible time our enormous natural resources.

Oil Mill Superintendents.

[Special Cor. Manufacturers Record.]

Macon, Ga., June 22, 1911.

The convention of the Oil Mill Superintendents at Macon changed the name of this organization to the Eastern Association of Oil Mill Superintendents, including all States east of the Mississippi River. The following officers were elected: J. C. Holmes, Blakely, Ga., president; J. W. Hanson, Pelham, Ga., secretary and treasurer; W. J. Yarbboro, Macon, Ga.; J. W. Washington, Pelham, S. C.; J. F. Rhodes, Eufaula, Ala., and M. D. Moore, Kinston, N. C., vice-presidents.

There was organized also the Oil Mill Superintendents' Auxiliary, to include oil-mill machinery manufacturers, the supply men, chemists and publications interested in oil-mill operations, with Messrs. J. C. Burruss, Atlanta, Ga., president; C. M. Edwards, Richmond, Va., vice-president; F. C. Myers, Atlanta, Ga., secretary, and J. C. Fulford, Albany, Ga., treasurer.

Wants Cold Storage.

Hancock, Md., June 17.

Editor Manufacturers Record:

We have growing here over 4000 acres in apples and peaches. One-half of this acreage is bearing. We need at this point an ice plant and a large cold-storage plant, several large canning factories and an evaporating plant. JOHN T. MASON.



HOW ASHEVILLE'S STREETS ARE CLEANED.

ASHEVILLE'S WATER SUPPLY.

Straight from Falls Fed by Mount Mitchell.

[Special Cor. Manufacturers Record.]

Asheville, N. C., June 19.

There is nothing that describes Asheville and Western North Carolina quite so well as the phrase "Asheville, America's Beauty Spot," which originated in the active brain of Mr. Neptune Buckner, the ever-enthusiastic secretary of the Board of Trade here. Not only is the natural beauty of this part of the county in abundant evidence at every turn, but the people of Asheville are a live set, and their watchfulness never fails them when there is a good opportunity to add to the attractiveness of their city and country.

One of the notable features of Asheville is its 38 miles of paved streets inside the city limits. Their cleanliness is maintained by the three compressed-air flushers used by the city. These large tanks are filled from Asheville's pure-water supply, and when the force of the compressed air is brought into use the water shoots out in two directions. These streams of water are so forceful and are so focussed on the streets that every bit of dirt and refuse matter in range is washed into the storm sewer. To make sure that nothing is left on the sidewalks by the sometimes over-energetic stream of water, a man, on foot, follows every wagon on its route and sweeps all matter that is left by the stream into the flow of water, which takes it from the sight of the looker-on. These wagons wash all the paved streets once a week, and in the business section they wash the streets twice in seven days.

As to Asheville's water system, there is none better from a standpoint of purity and force, and yet it is maintained with perhaps the less expense of any other in the country according to the amount of water it furnishes. Crystal Falls is the source of Asheville's water supply. It is on the north fork of the Swannanoa River, about 20 miles from the city. The source of this falls is the springs of Mt. Mitchell, the mountain with the highest peak east of the Mississippi River. The watershed embraces 10,000 acres of ground, owned entirely by the city, and corps of warders is employed to patrol these grounds daily to see that nothing interferes with this natural water supply. Hence the water is absolutely pure, as is the case with all water flowing from the heart of lofty mountains. The heaviest rains that have ever visited Asheville and surrounding territory have not interfered with or in the least "murred" the drinking and commercially-used water. The monthly tests, which the water is subjected to at the hands of the State chemists, are sat-

isfactory in the highest degree, and at all times during the hottest seasons of the year one can always get a nice cool glass of water.

Just below the Crystal Falls the basin, or intake, with all its filters, is located, and it is at this point that the water begins its 20-mile trip down the mountains to Asheville. As this point is 500 feet above the highest point in the city, the water, by the time it has reached the end of the mains in the city, has gained so much velocity that it flows through the 51 miles of city water mains with a force that is hardly ever equaled in other water systems where heavy pumping engines are used. That the force of the stream is the best for fire-fighting purposes is attested in the fact that the State Firemen's Tournament has been held here about every other year for the last decade. The pressure to the square inch is all that could be desired, and to use this high pressure Asheville has, by actual test, the best fire companies in the State.

Aside from the mountain scenery and climate, there is nothing that the many thousands of tourists that visit Asheville during the summer and winter months enjoy and talk about more than its delightful water source, system and the water itself.

ROY G. BOOKER.

FOR MISSISSIPPI IMMIGRATION.

Largely Attended Convention Last Week at Gulfport.

It is likely that as an outcome of the second Statewide Immigration Convention, held at Gulfport last week under the auspices of the Mississippi Land Development Association, the Legislature of the State will be asked to appropriate for three years \$50,000 a year to be spent in advertising the opportunities of the State and attracting desirable settlers. About 450 persons from different parts of the State, together with speakers from Mississippi, Louisiana and other States, attended the convention. In reviewing the work of the year President Saunders compared Mississippi with Wisconsin, calling attention to the much greater increase in the value of lands in the latter State as compared with the increase in the value of Mississippi lands which had been accomplished in Wisconsin by State aid. Mississippi should, he said, be advertised by expert advertising men, and sufficient money should be appropriated for a three-year campaign, which would require at least \$50,000 a year. The \$150,000 would not be excessive or appalling, considering the great resources of Mississippi and the birthright of Mississippians. President Saunders further stated there were 5,000-

000 acres of undeveloped and unoccupied cut-over pine land in this State south of the Alabama & Vicksburg Railroad. If 1,000,000 could be sold at \$5 an acre, the remaining 4,000,000 could be sold at \$10 an acre. In addition to material benefits, there would be better schools, better roads, better society, etc. He considered it wise to let the light of publicity shine on the resources.

Secretary Davis made an interesting report showing work done. He explained that Mississippi was open to homeseekers and legitimate investors, and explained the work of the association in inviting men in other parts of the world to share in the State's resources. He also explained that the association is not a real estate agency, and that it is not a sharer in profits of any such company and agency.

Other speakers were ex-Senator H. D. Money, D. A. Saunders, J. R. Preston, J. C. Clair, industrial and immigration commissioner of the Illinois Central Railroad; S. H. Lowenburg, president of the Natchez Packing Co.; W. L. Henderson of the Southern Railway; Willis S. Thompson of Hattiesburg, interested in the colonization of cut-over pine lands; S. S. Thorpe of Chicago; President J. C. Hardy of the State Agricultural College; State Commissioner of Agriculture A. T. Blakeslee; H. H. Ahrens, J. A. Kirby, James Boyd and James M. Thomson of New Orleans; M. H. Bohrer of the Mobile & Ohio Railroad; B. E. Eaton of the Gulf & Ship Island Railroad; Lynn H. Dinkins of New Orleans, president of the Interstate Banking & Trust Co.; Vice-President R. V. Taylor of the Mobile & Ohio Railroad, and others. As officers were elected the following: Dr. P. H. Saunders of Laurel, president; C. R. Byrnes of Natchez, vice-president; L. E. Davis of Natchez, secretary and general manager; Oscar Newton of Jackson, treasurer; J. H. Welborn, Starkville; J. C. Kyle, Sardis; M. P. Studivant, Glendora; W. B. Hoffa, Grenada; W. R. Grant, Meridian; H. A. Camp, Magnolia; A. C. Crowder, Jackson, executive committee.



WATSON BUILDING, FAIRMONT, W. VA.

Completed recently; 70x100 feet; eight floors, mezzanine, storage, engineers' blueprint and photograph floors, and observatory; cost about \$500,000; occupied by Consolidation Coal Co., Jamison Coal Co., Fairmont & Clarksburg Traction Co., Fairmont Gas Co. and National Bank of Fairmont.

Cultivator Works at Birmingham.

The International Harrow Cultivator Co. of Birmingham began manufacturing last week. Its plant has been erected and equipped at a cost of about \$50,000, and the product is a harrow having 56 steel discs, each 1 1/4 inches apart. This harrow is 6 1/2 x 7 1/2 feet, and will cut clods instead of merely turning them over.

Hydro-Electric Power in North Carolina.

[Special Correspondence Manufacturers Record.]

Raleigh, N. C., June 26.

North Carolina was one of the first States of the South to utilize water-generated electricity for power and lighting purposes. Since that beginning wonderful things have been done in this State in this particular direction, and now North Carolina has become an object-lesson as a developer and user of this most admirable form of energy.

There are three centers of hydro-electric power development so far, these being Asheville, Charlotte and Raleigh. Asheville handles and will handle the power transmission feature in the mountain region, Charlotte in the Piedmont section and Raleigh in the east. There are set down in the memorandum books of power-hunters in this State much more than 2,000,000 available horse-power. There are certainly no longer transmission lines in the South than there are in North Carolina, a type of these being one which takes power from near Salisbury to Durham, traversing the very heart of the splendid Piedmont belt, where even the smallest village has industrial plants and where the manufacture of cotton goods and articles of wood is already so vast an industry.

In the east the streams naturally have less fall, for the coastal plain begins only 50 miles east of Raleigh, and there the fall ends entirely, so far as power is concerned. Raleigh's first power came from the Neuse River, six miles distant, and the second supply came two years ago from Buckhorn Falls, on the Cape Fear River, 26 miles away, where 8000 horse-power is developed at an expenditure of about \$1,000,000, including the transmission line. The Carolina Power Co. of Raleigh, Charles E. Johnson, president, which owns both of these plants, has built at Raleigh an auxiliary steam plant producing 8000 horse-power, all the equipment being the last word in type, the installation having been completed this year. This gives a present total of 17,000 horse-power. The company during the present year bought the partially completed hydro-electric plant at Blewitt's Falls, on the Yadkin River, 100 miles south of Raleigh, and has 1200 men and many machines working there day and night in order to get the current to Raleigh by the end of 1911. This plant will give 40,000 horse-power. The transmission line is under construction, and there will be erected here a transmission house of great capacity, part of which will be used as a supply house. Raleigh will furnish light and power to many towns in addition to Fayetteville, Sanford and Jonesboro, which it is already supplying, among the new points being Apex, Cary, Dunn, Smithfield, Selma, Garner, Auburn, Wake Forest, Franklinton, Henderson, Oxford, etc. Transmission lines are to be built north and east from this city, so as to serve these points. The Carolina Power & Light Co. has acquired the gas plants at Raleigh, Durham and Henderson, and it will no doubt take over those at several other points. The company has secured all the hydro-electric power worth anything in the east, so that it absolutely controls the situation. All the Raleigh industries use this power. Raleigh will have about 58,000 horse-power available the first of January, 1912.

Within a radius of 25 miles of Asheville there are already six hydro-electric developments. On Pigeon River, in Haywood county, the Waynesville Light & Power Co., of which B. J. Sloan of Waynesville

is president, has a development of about 1000 horse-power under a 40-foot head. This company is furnishing electric current for lighting purposes at Waynesville, and power to the Champion Fiber Co. at Canton. In Transylvania county there is a hydro-electric plant of about 700 horse-power furnishing power and lights to the town of Brevard and power for the various industries in that vicinity. On Hominy Creek, in Buncombe county, the Asheville Electric Co. has a small installation of 500 horse-power, operating under a head of 30 feet. Power from this plant is used in conjunction with other sources in lighting West Asheville. The North Carolina Electrical Co., of which W. T. Weaver is president, owns three plants. On Ivy River it has an installation of 1000 horse-power, operating under a head of 65 feet. On the French Broad River, five miles west of Asheville, is what is known as the Weaver plant, operating under a head of 22 feet, with an installed capacity of 3000 horse-power. Twenty-two miles below Asheville, and near Marshall, N. C., on the French Broad River, the company is now erecting a plant, to be in operation by October 1, with an installed capacity of 5000 horse-power, operating under a head of 32 feet. This last-named plant will be in some respects one of the best installations in the South. On the French Broad River, near Hot Springs, is the Mountain Island property, also owned by the North Carolina Electrical Power Co., which is capable of being developed for 10,000 horse-power. This will be developed as the needs of that section require. It is the policy of the North Carolina Electrical Power Co. to keep well in advance of all needs. It is serving power for Asheville's light and power properties and suburban railways, and also light for the towns of Weaverville, Marshall, Canton, Biltmore and their vicinity. The company is well financed, and is in position to furnish all power that may be needed in that section.

The expert and the student of possibilities as to hydro-electric power know well that its chief development in the South has been in North Carolina and South Carolina. Though the powers are numerous in a large area of North Carolina, yet the great actual ones are mainly in South Carolina, at the points where the rivers fall from the rocky up-country to the low country, this being the final fall of the water, so to speak, in its flow from the mountains to the sea. While Raleigh has at present availed itself of all the best water-powers in its own territory of supply and distribution, only two or three of minor importance being yet available, Charlotte, owing to its extremely favorable location in the Piedmont region and its getting the benefit of both the North Carolina and the South Carolina streams at the points of final fall, have about 1,000,000 horse-power of this type within a very small radius, only 60 miles. It is said that Greenville, S. C., has as much horse-power available within the same radius. The Raleigh zone will on the westward touch the eastern part of the one of which Charlotte is the center, say about on the Yadkin River, where extensive developments are being made. Experts place the value of a horse-power at \$25 annually, and this will give a very good idea as to the value of these hydro-electric developments in North Carolina. It is very safe to say that in the territory of which Asheville is the center 500,000 horse-power is available, though, of course, the streams there are

not nearly so large as they are in the Piedmont section, where they have gained so much volume. The highest fall east of the Yosemite Valley is in this Asheville region, this being the Hickory Nut fall, 960 feet high, in the Hickory Nut Gap, on which is one of the greatest canyons east of the Rockies. Yet the amount of water at this fall is ordinarily very small. There are about 30 of those high mountain streams which will furnish power.

In 1897 plans were perfected for the development of power on the Yadkin River, near Clemmons, in order to transmit the electric current 14 miles to Winston-Salem, and this plant was among the first of its kind in North Carolina, and among the very first in the Southern States. The plant was built by the Fries Manufacturing & Power Co., of which H. W. Fries was president and Henry E. Fries general manager, the hydraulic engineer being Charles R. Makepeace of Providence, R. I., the electric engineers being Lewis & Clafflin of the same city. The dam and the power-house were built in 1897, under the supervision of C. A. Reynolds of Winston-Salem. The development consisted of 16 54-inch turbine wheels, built by the S. Morgan Smith Company of York, Pa.; the 2750-kilowatt generators, by the Stanley Electric Co. of Pittsfield, Mass., the electric current being generated and transmitted at 11,000 volts, which at that time was considered a great voltage. Great difficulty was experienced in obtaining satisfactory fuses for the lines, as at that date very few 10,000-volt fuses had been manufactured. The power from this plant has been used steadily ever since at Winston-Salem for the operation of street cars, electric lights, cotton mills, tobacco factories and scores of other plants. About six years ago, by reason of the very rapid growth of Winston-Salem, the company which operates this plant put in a steam turbine plant and later closed a contract with the Southern Power Co. for the use of its current, so that now Winston-Salem can be supplied from any of three independent sources of power.

The power in the Charlotte sphere of influence has its source in the Appalachian forest reserve, and it is vital to the interests of the textile plants not only in this State, but in South Carolina and Georgia, so that the preservation of those vast mountain forests, so much of which the United States is at last taking over, means the conservation of priceless energy. The Southern Power Co. is the greatest in the South, and is spreading out until it is covering a great area in North Carolina and South Carolina all the way from Toxaway, in the high mountain region, to Durham, in this State. At Toxaway it has capable of development 20,000 horse-power; at Great Falls there is 40,000 horse-power; at Mountain Island as much, and it takes power from various other sources, furnishing it to scores of mills, which consume all the way from 6000 horse-power downward. The Yadkin River, very prominent as a power source, rises at a point 3250 feet above the sea level, and there is 2000 feet of available fall. It is estimated that this stream and its tributaries can furnish 1,000,000 horse-power, which is sufficient to operate 30,000,000 spindles and 1,000,000 looms. The Southern Power Co. has adopted 60,000 volts as its transmission pressure.

It should be borne in mind that there are some hydro-electric powers partially completed which are yet to be brought in; for example, one at Whitney, on the Yadkin River, where over \$3,500,000 has already been expended, the panic of 1907 having stopped the work. This plant will give some 50,000 horse-power. It is rumored that the Southern Power Co. will

acquire it. Its president is James B. Duke of New York and Durham, N. C., and its vice-president is W. S. Lee of Charlotte. This company has now in operation in North and South Carolina seven plants, and it plans to establish these at eight other points in the two States. It has pole lines carrying 11,000, 44,000 and 50,000 volts, and its towers carry wires of 50,000 and 100,000 voltage. The total length of all its lines is 1350 miles, covering a territory 200 miles east and west and 150 miles north and south, connecting in one system plants now yielding over 100,000 horse-power. The company now furnishes light and power to 45 cities and towns, and in these operates six railways.

Of the 365 textile mills in North Carolina, about one-fourth are electrically operated, but the use of electricity is extending with great rapidity, and the transmission lines now under construction will carry current to so many mills it is quite probable that within 12 months half of these will be thus driven. The search for water-power as a producer of electricity is so keen that not a stream of any size having a fall worthy of consideration has been missed by the experts, and every district has been thoroughly mapped by the latter, so that power-hunters have become well known even in the wildest regions in the mountains. There is one region as yet entirely untouched, this being along part of the Carolina, Clinchfield & Ohio Railway, in the extreme southwestern part of the State.

FRED A. OLDS.

1000 HOUSES TO BE BUILT.

New Towns Contracted for in Eastern Kentucky.

The MANUFACTURERS RECORD is advised by the Consolidation Coal Co. of Baltimore that it has awarded contract to the Nicola Building Co. of Pittsburg for extensive construction in connection with the development, now progressing, of its 100,000 acres of coal land in Kentucky. This contract involves erecting about 1000 buildings, including miners' dwellings, churches, schools, theater, etc., distributed over an area of 15 miles, at and near the new town of Jenkins, in Letcher county; also constructing a boulevard several miles long and a lake one mile wide, on the shores of which the mining company's officials will locate. Electric and water plants are also planned. The Nicola Building Co. is erecting sawmills, planing mills, brick works, limekilns and blacksmith shops in connection with its contract. It wires the MANUFACTURERS RECORD that it cannot give any estimated cost on buildings at Jenkins as the bulk of material will be manufactured on the ground, and that other materials have been purchased.

Birmingham Iron Market.

[Special Cor. Manufacturers Record.]

Birmingham, Ala., June 27.

Within the past week a new low level for pig-iron prices was recorded, and, contrary to expectations with a further decline, the sales increased materially over the sales for the week previous. Of the tonnage sold in but few cases was a higher price received than a basis of \$10 per ton Birmingham for No. 2 foundry, but prompt shipments were principally in demand, and it cannot yet be said that the figures named are a correct representative for the price of deliveries extending over the remainder of this year. The demand was of a very desultory nature and largely involved comparatively small lots. In view of the nature of recent transactions and the aggregate tonnage sold, it is believed that general foundry trade conditions have improved. There has been no disposition whatever in any quarters to

buy for speculative purposes, while the actual movement from furnace yards has increased in the face of the approaching semi-annual shut-down at all foundries. This is a very notable fact in summarizing market conditions, especially so since the output has been further reduced during the month. Furnace operators without exception insist that a further decline in prices cannot take place owing to the fact that the cost of production has now been reached, and in some instances the suspension of all operations has been recommended. It is noted that two producing interests are entirely out of the market by reason of their refusal to meet current quotations, while a third and much larger interest makes all quotations with reluctance. Nothing whatever has been done toward fixing a price for deliveries during the early part of next year, and, in fact, the inquiries for such delivery that has been received so far have not had serious consideration. An encouraging feature in the local situation is the prospect for the resumption of operations at a large cast-iron water-pipe plant that has been out of commission for some months. It is understood that the plant referred to has changed ownership and will soon be rehabilitated. The cast-iron pipe concern, it will be noted, when in full operation melts approximately 75 per cent. of the iron that is melted in the Birmingham district proper. We quote the pig-iron market as below for prompt shipments or third-quarter delivery, with an advance of 50 cents per ton over the figures quoted as applicable to fourth-quarter shipments, viz.:

No. 1 soft and foundry, \$10.50 to \$11.
No. 2 soft and foundry, \$10 to \$10.50
No. 3 foundry, \$9.50 to \$10.
No. 4 foundry, \$9.25 to \$9.75.
Gray forge, \$9 to \$9.50.
Mottled, \$8.75 to \$9.25.
Basic, chill cast, \$10 to \$10.50.
Charcoal car-wheel iron, \$22.50 to \$23.

A very attractive tonnage of cast-iron water pipe was placed with Southern plants during the past week and at prices reported as very satisfactory. The contracts placed consisted of the requirement for the city of Muskogee, Okla.; the city of Colorado Springs, Col., and the city of Gadsden, Ala. These requirements aggregated some 5500 tons, which was about equally divided between the United States Cast Iron Pipe & Foundry Co. and the American Cast Iron Pipe Co. The aggregate of small orders for maintenance work recently placed is well in keeping with expectations, and the recent bond issues for such work would indicate a much larger volume of orders from that direction in the near future.

The prospects for a gas line from Fayette county to this city and to Columbus, Miss., are given considerable interest by local pipe manufacturers. Such lines as those proposed would require a very significant tonnage and of the class on which competition is not so keen. We quote water pipe as follows per net ton f. o. b. cars here as follows, viz.: 4-inch to 6-inch, \$22; 8-inch, to 12-inch, \$21; over 12-inch, average \$20, with \$1 per ton extra for gas pipe.

The contracts for steam coal placed through local offices during the past week are very gratifying to coal-mine operators. An aggregate of some 500,000 tons for shipment over the next 12 months has just been contracted for, a portion of which tonnage is from an entirely new territory. Lower prices are being made than at this time last year, but the extent of operations is not seriously affected so far because of the scarcity of demand. Straight run-of-mine steam coal from the old seams is now bringing from \$1.25 to

\$1.35 per ton at mines on the open market, with contracts entered at an advance of from 10 cents to 15 cents per ton over those figures. Steam coal from the "Big Seam" and other seams not generally popular are bringing from \$1.05 to \$1.15 per ton at mines. The production of coke in this district is now at a very low rate, and no demand whatever is found for furnace grades. High-grade foundry coke is in fairly good demand, and prices are being maintained at from \$3.35 to \$3.50 per ton at Alabama ovens.

The old-material market does not show signs of improvement, and in view of the decline in the price of pig-iron it is quite likely that a further revision of dealers' prices would be necessary to induce trading. At present there is little or no demand, and the transactions recorded are of such a nature as not to afford a test of the strength of quotations. The accumulation of this material in the Birmingham district strictly is smaller than usual, but in the adjoining territory it is understood that a considerable quantity is in evidence. We can only quote dealers' prices nominally, which are as follows, with practically no trading except between dealers, viz.:

Old iron axles, standard, \$15.50 to \$16.
Old iron axles, small, \$13 to \$13.50.
Old steel axles, light, \$13 to \$13.50.
Old steel axles, standard, \$14 to \$14.50.
Old iron rails, \$13.50 to \$14.50.
No. 1 railroad wrought, \$11 to \$11.50.
No. 2 railroad wrought, \$8 to \$8.50.
No. 1 country, \$7 to \$7.50.
No. 2 country, \$6.50 to \$7.
No. 1 machinery, \$8.50 to \$9.
No. 1 steel, \$9 to \$9.50.
Standard car wheels, \$11 to \$11.50.
Tramcar wheels, \$8 to \$8.50.
Light cast and stove plate, \$7 to \$7.50.
Prospectors for the Providence Oil & Gas Co. in the Fayette county fields report discovery of a gusher at Bankston, Ala., nine miles from the four wells located at Fayette. The new well is reported as having a flow of from 5,000,000 to 6,000,000 feet of gas per day, which is twice the flow at any of the wells at Fayette. The Providence Company, of which Frank Nelson, Jr., is president, is now sinking three additional wells in the Fayette and Bankston fields, and has already taken steps toward the construction of a pipe line from those fields to Birmingham, Ala., and Columbus, Miss.

Increasing Orders for Steel Rails.

[Special Dispatch to Manufacturers Record.]

New York, June 28.

The Tennessee Coal, Iron & Railroad Co. has received orders aggregating 24,500 tons, of which 23,000 tons are for the Missouri Pacific Railroad and 1050 tons for the Louisville & Nashville. It is understood that the Baltimore & Ohio Railroad has placed orders with the Cambria Steel Co. for 27,000 tons. The Illinois Steel Co. has orders for 14,000 tons. The Carnegie Steel Co. sold 500 tons to the Pittsburgh Railway Co.

The Tennessee Company now has orders on its books sufficient to run its Ensley plant steadily till early fall.

These sales for the week indicate an increasing activity in the placing of orders for steel rails.

Fire Waste.

In furtherance of his vigorous advocacy of prevention and protection as the cure for the enormous waste by fire in the United States, Mr. Powell Evans, president of the Merchant & Evans Company, Philadelphia, has published a pamphlet dealing with bills before the Pennsylvania Legislature to provide just State and city fire marshal laws and building ordinances.

GREATEST COKE PRODUCTION.

Last Year Was a Record-Breaker in Tonnage.

The year 1910 was a record-breaker in coke production, with an output of 41,681,410 short tons, an increase of 2,366,345 short tons over the 1909 figures, and even exceeding by 901,846 short tons the banner year 1907, although the value of the 1910 product was \$11,842,859 less than that of 1907. The following figures, compiled by Edward W. Parker, the coal statistician of the United States Geological Survey, show the production and prices of coke manufactured in the United States during the last four years:

	Coke produced (short tons).	Value.	Average price per ton.
1907.....	40,779,564	\$11,539,126	\$2 74
1908.....	26,033,518	62,483,983	2 40
1909.....	39,315,065	89,965,483	2 29
1910.....	41,681,410	99,696,267	2 39

	Coal consumed (short tons).	Value.	Average price per ton.
1907.....	61,946,109	\$72,784,851	\$1 18
1908.....	39,440,837	45,222,474	1 15
1909.....	59,354,937	62,203,382	1 05
1910.....	63,045,795	74,808,114	1 19

It will be observed that in the production of coke in 1910 there was a larger relative increase in value than in quantity, and that the average price per ton advanced from \$2.29 in 1909 to \$2.39 in 1910, from which it might appear that the state of the coke industry in 1910 was highly satisfactory. Such, however, was not the case, for whereas the value of the product of 1910 exceeded that of 1909 by \$9,730,784, this increase was more than offset by the higher value of the coal charged into the ovens. The quantity of coal used in the manufacture of coke in 1909 was 59,354,937 short tons, valued at \$62,203,382; in 1910 the quantity of coal used was 63,045,795 short tons, valued at \$74,808,114. The increase in the value of the coal used in 1910 over 1909 was \$12,604,732, or \$2,873,948 more than the increase in the value of the coke.

Notwithstanding the increased production and the higher value of the coke in 1910 as compared with 1909, the year was decidedly unsatisfactory from the producer's standpoint. It has already been noted that the increase in the value of the coal used exceeded the increase in the value of the coke produced, and that the net result of the year's business was really a loss rather than a gain over the preceding year. The tendency of prices was downward from January to December, and in the latter part of the year much of the coke business was conducted at a loss.

Connellsville furnace coke, which is recognized as the standard blast-furnace fuel, declined from a high record of \$2.75 a ton in January to \$1.40 in December, and the values of other cokes competing with Connellsville showed a corresponding decline.

Federal Utilities.

Harrison Williams, 60 Broadway, New York, writing to the MANUFACTURERS RECORD regarding the organization of the Federal Utilities, Inc., says the work of the company will be national in scope, and will doubtless include the development of public utilities in the South. This company has recently been organized under the laws of Virginia. Its policy, as announced by its management, will include the acquisition and sale of the securities of public utilities and other corporations having established earnings. It is stated that \$1,000,000 in cash has been paid into the treasury. Its authorized capital stock is \$3,000,000 of preferred and \$3,000,000 of common, of which \$1,000,000 of preferred and \$2,000,000 of common are reported as having been issued. The executive committee consists of De Forest Candee, president, formerly of Messrs. Lee, Higginson & Co.; Anson W. Burchard,

assistant to president, General Electric Co.; Samuel McRoberts, vice-president, National City Bank; Thomas A. Reynolds, National City Bank; Harrison Williams, American Gas & Electric Co., Federal Light & Traction Co., president Springfield Railway & Light Co.

PASCAGOULA'S COMMERCE.

More Than \$4,000,000 Worth of Merchandise Last Year.

[Special Cor. Manufacturers Record.]

Pascagoula, Miss., June 17.

Mr. F. H. Lewis, chairman of the rivers and harbors committee of the Pascagoula Commercial Club, has just finished compiling the statistics of the port of Pascagoula for the year ended December 31, 1910.

By far the greater percentage of the exports from this place was lumber and timber, both sawn and hewed. There was 91,557,000 superficial feet of lumber and timber loaded on vessels in the harbor, while 72,550,000 feet were lightered from this place to other points where it was loaded on vessels. This makes the total amount of lumber and timber manufactured here and shipped to foreign markets 164,127,000 superficial feet, valued at \$2,954,286.

To these foreign exports we must add the lumber and timber which were shipped by coastwise vessels and by rail for domestic use, and which aggregated the total amount of 5,084,000 superficial feet shipped by water and listed in the custom-house, 13,000,000 feet shipped by water and not listed in the custom-house, and 5,750,000 feet shipped by rail to Northern and Western markets. This shows that the total of foreign and domestic exports of lumber and timber from this port for the year of 1910 aggregated 187,961,000 feet, of the value of \$3,383,293.

Though lumber and timber make up the bulk of the exports of this port, they are by no means the only articles of her commerce. The creosoting works at Pascagoula creosoted and shipped 11,500,000 superficial feet of lumber and timber and piling, of the value of \$460,000, and there were shipped from here 650,000 feet of hardwood timber for furniture, etc., valued at \$19,000. The pecan orchards, though most of them are yet in their infancy, shipped 60,000 pounds of pecans, which sold for \$15,000. There were also 15,000 barrels of turpentine of the value of \$45,000, and 500,000 barrels of charcoal, which sold for \$150,000. There was shipped to Northern and Western markets by express 5750 pounds of fresh fish on ice, valued at \$40,250; also 18,000 barrels of oysters, worth \$54,000, and the wool industry, which has lain dormant for years, contributed 51,000 pounds of wool, valued at \$11,220,000. The shingle mills made and shipped away 150,000 bundles of shingles, valued at \$150,000. There was also 625 barrels of cane syrup, valued at \$12,500, and fruits and other agricultural products to the sum of \$70,000, making the total of \$1,045,000, which, added to the exports of lumber and timber, gives the total of foreign and domestic exports of Pascagoula at \$4,428,298. Not a bad showing in a period of panic.

CHAS. E. CHIDSEY.

Plant Costing About \$125,000.

The Farmers' Cotton Oil & Fertilizer Co. of Huntsville, Ala., will increase its capital stock from \$75,000 to the \$500,000, mentioned last week. Of this amount, \$225,000 will be issued now and about \$125,000 will be the cost of the proposed fertilizer and acidulating plant. Peter S. Gilchrist of Charlotte will be the company's engineer, and the plans and specifications for the plant will be ready for proposals about July 1.

Cottonseed Mills and Peanut Oil.

By W. R. BEATTIE, Assistant Horticulturist, National Department of Agriculture.

The oil from the *Arachis*, or peanut, has for many years been the standard cooking and edible oil in many European, African and South American countries. The production of this oil gives employment to thousands of tillers of the soil, and requires the operation of a large number of oil mills in those countries.

During the past the oil-mill interests of the United States have given very little attention to the manufacture of peanut oil, and the bulk of the American crop of peanuts has been consumed in other channels of trade. Recently the advent of the boll-weevil has caused oil mill men to cast about for raw materials with which to keep their mills running. Castor beans, copra, soja beans and sesame have all been tried, but with the great abundance of good peanut lands in the South and the high percentage of oil that Southern-grown peanuts contain, it is apparent that the raw material can be produced in the vicinity of the mills, and that the crop is much more certain than several others under investigation.

Spanish peanuts grown in our Southern States often contain 53 per cent. of oil, and the average is about 50 per cent. On average land one-half ton of nuts and one ton of forage can be produced. The cost of growing will be about \$12 an acre.

Good land will yield about a ton, 60½ bushels, of Spanish peanuts an acre at practically the same cost for cultivation. One ton of peanuts, as they come from the thresher, will yield nearly 1500 pounds of clean meats, and these will produce from 83 to 85 gallons of oil and about 850 pounds of cake.

In European mills several grades of oil are made. The first, or cold pressing, gives a high-grade oil which is adapted for use as salad oil and any purpose for which the higher grades of olive oil are now employed. The oil obtained by the second pressing is used for general culinary and manufacturing purposes. The oil from the third pressing, where the third pressing is made, goes into the soap stock.

Peanut oil contains a very small percentage of fatty acids, and is comparatively easy to refine, the first-grade oil requiring only to be filtered and slightly bleached before sealing in bottles or cans.

One important essential in the manufacture of peanut oil is to complete the process within a reasonably short period of time. The meats should not be shelled and blanched until wanted for crushing and pressing; then the oil should be filtered as it comes from the press rather than be allowed to stand over the "foots" in a settling tank.

The regular equipment of the cottonseed-oil mills of the South will require very little change to adapt them to the work of handling peanuts. It will be necessary to add machines for shelling, cleaning and blanching the peanuts, but the rolls, cake-formers, presses and other machinery now used for working cottonseed may be employed for peanuts.

The market stands ready to handle the peanut oil at prices that are favorable to both the farmers and the mill men. The problem confronting us is to get enough peanuts grown to first supply the general trade in shelled and unshelled peanuts, and after this is done we may expect to develop the peanut oil industry in the United States.

Many of the oil mills of Mississippi are now encouraging the planting of peanuts for oil purposes, a few mills having made

definite arrangements to crush peanuts the coming winter. The United States Department of Agriculture is giving special attention to both the production and the mill side of the proposition, and stands ready to aid in every way possible. Bulletin No. 431 on the peanut gives cultural and harvesting instructions, and may be had free upon application to the Secretary of Agriculture.

The Daily Consular and Trade Report for June 12, 1911, contains a most interesting article from Consul-General A.

Gaulin relative to the peanut oil industry at Marseilles. This article, reproduced in the MANUFACTURERS RECORD of June 22, gives a general outline of the scope of the industry and the methods that are pursued in the mills, together with the necessary changes in the ordinary cottonseed-oil mill to adapt it to the crushing of peanuts. It should be borne in mind that the equipment of our American cottonseed-oil mills is superior in most respects to that of the European mills, and that the adaptation of our mills for peanut crushing would be somewhat different from that enumerated in the report. We have in the United States several manufacturers of peanut shelling and peanut cleaning machinery who are in a position to furnish the necessary equipment to change our oil mills for the peanut work.

Three Oklahoma Cities.

MINERALS AT McALESTER.

Vast Deposits of Coal, Clays, Shale and Limestone Nearby.

[Special Cor. Manufacturers Record.]

McAlester, Okla., June 16.

McAlester is so favorably located and possessed of so many resources that it seems safe to predict that it will, at no distant day, become one of the great cities not only of Oklahoma, but of the Southwest. Its railway facilities at present consist of two trunk lines, the Missouri, Kansas & Texas and the Chicago, Rock Island & Pacific, with their respective branches, which not only give direct connection with all cities north, south, east and west, but with all vital points within the State. McAlester is about equidistant from St. Louis and Kansas City on the north; from Memphis on the east and Galveston on the south, and is within easy touch of the Pacific Coast on the west. It is in the center of seemingly inexhaustible deposits of bituminous coal, which practical tests have shown to be the equal of that produced by the mines of any other State in the Union. These mines have already been developed to an annual output of 3,000,000 tons per annum, giving employment to 3720 men at an annual total wage of \$3,720,000. As an inducement to manufacturers to locate at McAlester all of the coal operators offer especially low prices.

Pittsburg county, of which McAlester is the capital, is peculiarly rich in other minerals. It has clays and shale which tests have shown to be unsurpassed for the manufacture of brick, tile, sewer pipe and pottery. In close proximity to these are immense deposits of limestone over 95 per cent. pure, while an excellent quality of building and flagging stone is being quarried within the city limits. Within a few miles of the town sporadic examples of iron, lead and zinc have been discovered, and the slight efforts at development that have been made clearly indicate that these ores will, at an early day, be uncovered, possibly in superabundant quantities. There is also good reason to believe that Pittsburg county is underlaid with oil and gas, and that sooner or later it will be embraced in the mid-continent oil and gas field, the greatest producer in the world. Already oil in paying quantities has been uncovered. In addition, immediately contiguous to the city is a splendid deposit of glass sand, which assays over 99 per cent. pure silica.

Although so richly endowed with minerals, Pittsburg county has not been stunted in its agricultural and horticultural possibilities. The season being propitious, her soil has been known to grow a bale and a half of cotton to the acre, and

on the same ground to produce 60 to 80 bushels of corn, 30 to 60 bushels of oats, 300 bushels of potatoes or two tons of hay, two crops in the season. The climate and soil are peculiarly adapted to the growing of all fruits, berries, grapes, etc., while poultry-raising is fast becoming a standard industry.

McAlester is not only a business city, but is peculiarly a city of homes, churches and schools. It is also noted for its splendid hotel, the Busby; for its opera-house, and for its Scottish Rite Temple, which James D. Richardson, sovereign grand commander of the Southern jurisdiction of Scottish Rite Masonry, has pronounced the most beautiful, complete and admirably adapted for its purpose of any temple in the entire jurisdiction.

By an act of the Second Legislature McAlester was selected as the site of the State Penitentiary. Six hundred thousand dollars have already been appropriated for the construction of buildings, and it is estimated that it will require fully \$1,000,000 to complete them.

F. M. POSEGATE.

TO GAIN INDUSTRIES.

Equipment of the Young and Flourishing Anadarko.

[Special Cor. Manufacturers Record.]

Anadarko, Okla., June 15.

There are surprises in Oklahoma yet in store even for the man particularly well versed as to her municipal and general conditions. One of these surprises was met with by your correspondent upon his visit to Anadarko. He expected to find here an average Oklahoma country town. Instead, he was ushered into a modern, up-to-date little city of 3500 people, with approximately five miles of asphalt streets and double that number of granitoid sidewalks, these improvements alone having cost \$250,000; with complete electric-light and water-works plants, owned and operated by the city; a perfect sanitary and storm sewerage system, and an up-to-date fire department; with a school system not exceeded in efficiency by that of any city in the State; with two commodious brick school buildings occupied and a third one to cost \$16,000 under construction. The city has a fine park of 39 acres, which the city maintains in splendid shape; a commodious and imposing courthouse, erected at a cost of \$65,000; a public library maintained by the municipality, and a city hall. In this building are quartered all of the city officers, the commercial clubs, the public library and the Fire Department. In addition, an apartment is fitted up not only for the accommodation of the women of the city during their shopping expeditions, but for the families

of the farmers who visit the town for a like purpose. It is a pleasant and commodious resting place for the women of the city and country.

The most important enterprise inaugurated by the city and carried to a successful culmination is the dam across the Washita River at a cost of \$100,000. From this dam is generated the power that operates the electric light and water-works plants, thus enabling the city to furnish both light and water at merely nominal cost. The power generated at this dam is sufficient even now to operate the machinery of several factories, and is susceptible of indefinite increase. This renders Anadarko an eligible location for the establishment of manufactories. In addition to the cost of constructing the dam, the city has expended \$30,000 in the extension of water mains and \$22,000 in the building of the city lighting system.

Anadarko hopes to become a manufacturing city, and to that end the Commercial Club purchased and now owns 20 acres of ground lying along the railroad and near the dam. The purpose of this land is to offer sites to manufacturers. In this connection the club also owns a block of ground in Hite's addition to the city to be devoted, if necessary, to the same purpose.

Two trunk lines of railway, with local branches, afford outlet and inlet to the city. It is the market town for Caddo county, and is therefore the logical distributing point for one of the richest agricultural districts of the State.

The Kiowa Indian school and agency is located at Anadarko, and the United States Government disbursed to that tribe during last year \$980,000, all of which practically found its way into the tills of the tradesmen of the city.

The town was founded August 6, 1901, and, to a certainty, few American cities can show greater solid advancement in nine years.

F. M. POSEGATE.

NEAR ROCK ASPHALT DEPOSITS.

One of the Peculiar Advantages of Ardmore.

[Special Cor. Manufacturers Record.]

Ardmore, Okla., June 17.

Ardmore, the capital of Carter county, is midway between Oklahoma City and Fort Worth and Dallas, Tex. It has a population of 11,250, and is under commission government. Three trunk lines, the Santa Fe, the Rock Island and the Frisco, with their several branches, give practically direct connection with all sections outside the State, and place it in immediate touch with all important points within the State. In addition to the railways named, two more are projected with almost positive assurances that they will be built within the shortest possible time, one to traverse the country between Ardmore and Sherman, Tex., the other, the Ardmore, Duncan & Lawton, to run west through the oil fields and asphalt deposits of Carter county to a junction with the Rock Island. This city's public utilities are up to date. The streets are paved with rock asphalt taken from deposits in close proximity to the corporate limits. More than five years ago the writer witnessed the paving of the first block in Ardmore with native, or rock asphalt. The pavement in this block stands today as firm and smooth as it appeared upon the day of its completion.

Through the courtesy of Mr. R. A. White, secretary of the Ardmore Industrial Co., the writer visited one of the main asphalt beds of Carter county, located near the village of Woodford, 24 miles distant from Ardmore. Twenty-four miles over perfect roads, driven by

an expert chauffeur in a machine that worked like a charm, through a section every acre of which is susceptible of cultivation, is an experience seldom enjoyed by a newspaper correspondent. In less than one hour the distance was covered, and the party stood upon the brink of a pit or mine from which thousands of tons of asphalt had been taken, and in which untold thousands of tons remained.

This pit, the first one opened, appeared to be 150 yards in width and possibly double that number of yards in length. In depth the excavation looked to be about 200 feet. Work ceased in this mine simply because another pit was opened on the same lead, about a quarter of a mile distant, with improved and more effective machinery. This particular lead or bed has been developed for about one mile and a half in length, its average width being possibly 100 yards. The vein, however, has been surveyed and tested for capacity over a length of eight miles. Its depth is only a matter of conjecture. Estimating from the amount of asphalt that has been taken out of this one bed, there yet remains enough to pave the streets of all the cities of the United States, together with those of all the cities of Europe and the Continent, and then some. It is unnecessary to say that this particular asphalt deposit is the main inducement to the building of the Ardmore, Dittman & Lawton Railroad. With the completion of that road Ardmore rock asphalt will find its way to all cities of the United States.

Carter county is unusually blessed with natural resources. Besides asphalt it has gas, oil, silica, cement rock, sand, coal and plenty of good pure water.

The latest movement for a Greater Ardmore is an industrial company, composed of 100 of the city's most enterprising business men, with a paid up capital of \$100,000. The business of this company will be to buy and sell real estate, every cent of profit to be devoted to the establishment of industrial enterprises.

F. M. POSSEGATE.

The Intercoastal Canal.

Mr. C. S. E. Holland, Victoria, Tex., president Interstate Inland Waterway League of Louisiana and Texas, writes to the MANUFACTURERS RECORD:

"The Intercoastal Canal has been completed from Corpus Christi by way of Aransas Pass, through Aransas Bay, etc., to Matagorda Bay, also from the Brazos River to Galveston and Houston. The stretch which has been contracted for and not completed, between Matagorda Bay and the Brazos River, will connect this section as far down as Corpus Christi with Houston and Galveston. The section from Corpus Christi to Brownsville, and the section from Galveston to Sabine Pass, has not received an appropriation from Congress, but the latter section we expect to get an appropriation for at the next session of Congress. Appropriations have been made for the canal through the entire State of Louisiana to a connection with the Mississippi River, and I believe the same is in use as far west as the Mormon River, and the question of which routes, three having been surveyed, from Lake Charles to Orange, is now up before the board of engineers of the United States Army for decision. Those portions of the canal that have been completed are being used considerably, and when the section from Matagorda Bay to the Brazos River has been completed regular lines of freight and passenger craft will be put on, and preparations for the same are now under way."

INDUSTRIES WANTED BY SOUTHERN COMMUNITIES

WHAT IS YOUR TOWN DOING?

The MANUFACTURERS RECORD will be glad to receive from responsible correspondents in every town in the South brief items of news about business conditions and the opportunities for industrial enterprises. This information is desired for publication without cost of any kind to the sender, and regardless of whether the writer of the letter is a subscriber or not. The MANUFACTURERS RECORD accepts no paid matter in its reading pages. It seeks information of this kind from commercial and industrial organizations and from municipal authorities in every town and city of the South.

This department is open only to news facts of interest to investors, homeseekers and manufacturers. Communications of 200 or 300 words are likely to be given prompt publicity than more extended ones.

TULLAHOMA.

Board of Trade,
Tullahoma, Tenn., June 23.

Editor Manufacturers Record:

Tullahoma occupies a strategic position at the heart of the splendid Nashville, Chattanooga & St. Louis Railway system, 69 miles from Nashville and 82 from Chattanooga. There are 19 passenger trains in and out of Tullahoma every day, five on the Bon Air branch, the remaining 14 on the main line, including the year round daily train between Chicago, St. Louis, Atlanta and Jacksonville. Tullahoma is 1070 feet above the sea, on the high and breezy Cumberland Plateau, and is unrivaled for health. It has a population of 5000, and expects to have 10,000 within three years. United States Army maneuvering grounds have been established near the city on the ground presented to the Government by the city for that purpose. Tullahoma has large furniture and bending factories, each working 200 employees; one overall factory working 75 women, hub and spoke factory working 100 men, ten or a dozen sawmills and woodworking factories, large flour mill, grist mills. It owns and operates its own water and electric-light plant. Four years ago no tobacco was raised here. Last year 700,000 pounds were brought to market. This year the crop is in fine shape at this writing, and a crop of more than 1,000,000 pounds is expected. The average price per acre for the 1910 crop was \$106. There are great opportunities here for tobacco raisers. The lands are comparatively cheap, unimproved lands selling for \$10 and \$12 per acre, improved lands \$15 and up. Tullahoma also is near fine phosphate beds, which are being opened up. There are eight churches in the city and no saloons. It is an ideal health resort, being above the fever line. Tullahoma extends welcome to all good people desiring to become citizens, and is ever willing and glad to give financial help or investment to any legitimate enterprise.

JOHN W. HARTON, Secretary.

IN MIDST OF IRRIGATION.

Retail Merchants' Association,
Devine, Tex., June 14.

Editor Manufacturers Record:

One of the largest dams in the world is being built on the Medina River, 28 miles above the town of Devine. This dam will be 1360 feet long, 160 feet high, and will back the water up this magnificent stream a distance of 25 miles. This stupendous undertaking will take about 20 months' time to complete it, and is under the direct supervision of Dr. F. S. Pearson, who has now a force of 1500 men at work, together with teams and modern machinery, and 500 additional men will be used at once in building a spur track from railroad in order that supplies may be quickly handled and machinery handled with dispatch. Dr. Pearson has \$6,000,000 behind this irrigation scheme, and the promoters purpose to irrigate about 200,000 acres of the rich fertile land through which the canals will flow. About 60,000 acres have already been secured by his company, and it has options on a great deal more. This land

lies on either side of the town of Devine, and extends about eight miles below the town.

Devine is situated on the International & Great Northern Railroad, 33 miles south of San Antonio. It is surrounded by a fertile land with clay subsoil, and is well adapted to the raising of all kinds of vegetables, grain and fruits; the climate is very mild, and crops grow the year round. The people are progressive (mostly German and American). The city is growing rapidly, and the investing capitalist is extended a welcome.

A. F. HUBBARD, Secretary.

PAWHUSKA IMPROVEMENTS.

Chamber of Commerce,

Editor Manufacturers Record:

Pawhuska, Okla., June 22.

The City Council of Pawhuska has submitted to its citizens a proposition to vote \$50,000 in bonds to extend water-works and \$10,000 for improving and extending the electric-light system, both of which are under municipal control and ownership. This city was platted by the United States Government six years ago, and our present equipment was installed about four years ago, and has already proven insufficient to meet the demands of the public, so rapid has been the growth of the city.

Injunction proceedings that obstructed our street pavement for two months have been settled by compromise, and work is now in progress. Twenty-two blocks constitutes the initial unit, and is under contract to the Shelby-Downard Asphalt Pav-

ing Co. of Ardmore, Okla. These people take the city's bonds in payment, and announce that they have already negotiated their sale.

Government payment of annuities to the Osage Indian tribe took place in this city last week, when \$300,000 was distributed. While these Indians occupy all parts of the Osage Nation, most of them have their residence here in Pawhuska and spend their money here. These payments occur quarterly, and are a splendid source of revenue to the merchants and tradesmen of the town. The number of Osages participating in the payment is 2230, including men, women and children, each of the latter drawing as much pay as adults.

H. L. RESING, Secretary.

WHAT ONE ITEM DID.

Board of Trade,

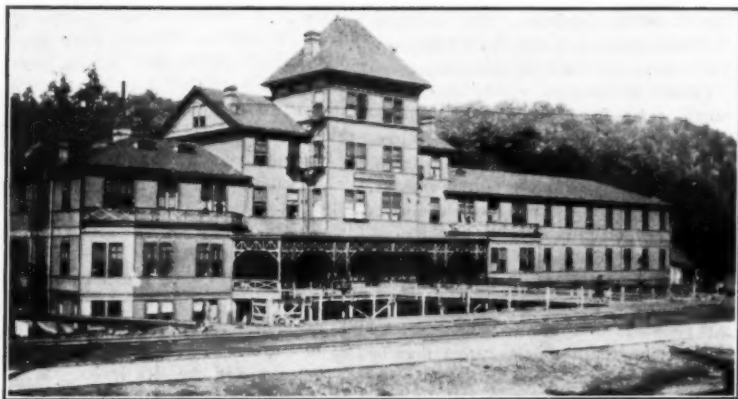
Bristol, Va.-Tenn., June 22.

Editor Manufacturers Record:

In renewing this subscription to the MANUFACTURERS RECORD I wish to thank you for the valuable aid you have been to this organization in its work. You have not only given extensive publicity to many of our plans, but you have put us in touch with people who have been profitable to this institution and its membership. As an instance: We yesterday closed contract with one of several concerns that wrote us in reply to a paragraph in one of our news letters published in your columns, and this contract called for an outlay of \$108 less than any previous quotation we had had. In this item alone the MANUFACTURERS RECORD has saved us a great deal more than we have paid it during the life of the Board of Trade.

F. M. RUNNELS, Secretary.

Detailed information about towns seeking manufacturing enterprises and offering specific advantages for development and business opportunities can be found under the head of "Classified Opportunities" on pages 80 and 81, and under "Cities, Towns and Railroads Inviting Factories" on pages 108, 109, 110 and 111.



Y. M. C. A. AT OAKDALE, TENN.

Y. M. C. A. at Oakdale.

The character of the Queen & Crescent system's Y. M. C. A. department is seen in a letter to the MANUFACTURERS RECORD from James D. Burton, first assistant secretary of that department, who calls attention to the accompanying view of the association building at Oakdale, Tenn. Mr. Burton writes:

"The second largest railroad Y. M. C. A. in the world in physical accommodations for men is found at Oakdale. It is maintained by the Cincinnati, New Orleans & Texas Pacific Railway, which is a part of the Queen & Crescent system. This work is carried on for the benefit of the company's men, who take their rest at this point. It is located in the mountains of

East Tennessee, in a ravine through which flows the Big Emory River. The company has spent several thousand dollars in improvements during the past few months. Among the improvements made upon this property, which was formerly known as the 'Babatchie Inn,' is a fireproof kitchen, a modern wash and bath room and an addition to the dormitory. The building is well lighted and heated. In arranging this property for association purposes the Cincinnati, New Orleans & Texas Pacific Railway has provided a good home for its employees, who find in this building all the conveniences of a private home. Hundreds pass in and out of its doors every 24 hours getting in shape to perform their duties on one of the great arteries of commerce between the North and the South."

GOOD ROADS

DUST PREVENTION ON CITY STREETS.*

By PROF. ARTHUR H. BLANCHARD, M. AM. Soc. C. E., Consulting Highway Engineer, Providence, R. I.

Public nuisances shall not be tolerated within the city limits is a phrase to be found on all our municipal statute-books, and yet repugnant, dirty, dusty streets are characteristic of practically all of our American cities. Why should a people, who spend vast sums of money for public improvements which add to the comfort of mankind, submit to streets covered with dust and dirt of all kinds? One reason is that the large majority of the people of this country do not appreciate that it is economically possible to have clean and practically dustless streets, and those who are familiar with cities where clean streets are the rule rather than the exception have not the courage of their convictions to make an emphatic protest to those responsible or to carry the issue to the polls, if necessary. The present is an opportune time for vigorously attacking the broad problem of prevention of dust on city streets, since it is slowly becoming recognized that clean streets contribute not only to the healthy condition of a city, but also play an important part in attracting capital and desirable residents. One must have a callous mind indeed who can drive through the streets of Dresden at any time of the day and not be impressed with the spotless, dustless condition of the streets of that municipality, and feel that it is a desirable place in which to live.

Before considering the effects of dust and the methods of alleviating the nuisance caused by its presence, a study of the sources from which street dust arises may be of interest. A self-evident source of dust is the mechanical abrasion by traffic of the road or street surface. It is manifest that the degree of abrasion will depend upon the amount and nature of the traffic, the kind of materials used and the method of construction and maintenance employed. Other sources of street dust depending upon traffic are the deposition of dirt which has adhered to the wheels of vehicles coming from adjacent earth, gravel or macadam streets, from the leakage of tire contents of loaded vehicles, both in transit and while loading and unloading, and from the excrement of animals. All street dust is by no means the result of traffic. In sections where shade trees are common a source of dust is to be found in the decay of twigs, bark and leaves, while pollen, seeds and spores of various plants are further sources. Mineral matter applied to certain street surfaces to prevent slipperiness is a constant source of dust. Dust resulting from manufacturing enterprises frequently forms a very considerable part of street dust. Mills where pulverizing is carried on, textile establishments and foundries are prolific sources of dust, while soot and fine ashes from chimneys find their way to the streets. From the nature of these sources it is apparent that the composition of street dust is extremely varied and complex.

Dust exerts a considerable pathogenic influence aside from its acting as a conveyor of disease germs. Various delicate membranes are irritated by the simple mechanical action of the dust, with the result not only of local inconvenience, but many times of general debility. The membranes of the respiratory organs are susceptible to this influence, especially if a person be asthmatic. The membranes of the eye are also frequently seriously irri-

tated by dust. In the sections where the dust problem has been successfully solved, physicians report a marked falling off in the number of cases of conjunctivitis.

In considering the problem of dust prevention on city streets it is advisable to classify the public ways under two general heads, business and residential streets, and to further differentiate between residential streets which are narrow, heavily shaded with trees and bordered with residences, and these streets which are more or less open.

There is one way, and only one way, to satisfactorily prevent dust on bituminous, cement-concrete, brick, wood-block and stone-block pavements which are subjected to excessive horse-drawn vehicle traffic. That method consists of removing the dung of animals and other street refuse by hand sweeping during the day, mechanical sweeping of the streets at night, which should be preceded by sprinkling, and finally flushing with water to remove fine dust and thoroughly cleanse the surface of the pavement. Under certain conditions, dependent upon the amount and character of traffic and the uses to which the street is subjected, it is feasible to omit the mechanical sweeping. It must be realized that it is absolutely impossible to economically remove fine dust by either hand or mechanical sweeping. The use of the so-called dust palliatives and surface treatments on pavements subjected to heavy mixed traffic is entirely wrong in principle, as sanitary conditions require the constant removal of filth from streets, and if this is removed periodically by flushing, the effectiveness of these processes is curtailed. Again, periodical watering of pavements to lay dust throughout the day is fundamentally wrong, as the fine dust, which necessitates sprinkling, should have been removed.

However, bituminous, cement-concrete, brick and wood-block pavements may be used on streets subjected primarily to motor-car traffic and light horse-drawn vehicle traffic, such as boulevards, open intra-urban trunk lines, etc. In such cases flushing is not necessarily a prerequisite to cleanliness. Generally patrol hand sweeping throughout the day will be sufficient.

Residential streets may be built with bituminous surfaces or as bituminous pavements, dependent upon local conditions. On this class of street the traffic is usually comparatively light from the standpoint of city traffic. If such streets have a surface coat of the proper kind of asphaltic material, the dung of animals and other refuse can be removed by patrol hand sweeping, while the nature of the surface will be such as to absorb fine dust and render the street practically dustless.

For macadam streets in poor condition for superficial treatment or when financial conditions do not render expedient the use of surface treatments and patrol sweeping, recourse must be had to the use of palliatives, such as light oils or light tars. To attain successful results it is necessary that light products having the proper chemical and physical properties should be used in small amount periodically during the season of dust.

In slum residential districts the streets, unless subjected to heavy horse-drawn vehicle traffic, should, provided grades will permit, be constructed of water-bound macadam with a superficial coat of refined

tar, or as bituminous pavements with a seal coat of refined tar. The gradient, however, may require the use of an asphaltic-tar compound or an asphalt for the superficial or seal coat. These forms of construction will give a sanitary surface, one from which excess dirt, dung of animals and refuse can easily be removed by patrol hand sweeping, and which during the night can be thoroughly cleansed by flushing. It should be noted that the nightly flushing with water will add materially to the comfort of the people by perceptible cooling of the atmosphere during hot summer nights.

In closing, it is paramount to emphasize the fact that economical and efficient results will only be attained by municipal ownership of the requisite plant equipment and a well-organized force of competent workmen.

WEEK'S HIGHWAY RECORD.

Progress in Southern Road and Street Improvement.

[Full details of highway undertakings are given in the Construction Department.]

Bonds Voted.

Alexandria, Va.—City authorized \$50,000 bond issue for street improvements.
Belton, Mo.—City voted \$10,000 bond issue for street improvements, etc.
Groveton, Tex.—Trinity county voted bond issue for road construction.
Palestine, Tex.—Anderson County Precinct No. 1 voted \$150,000 bond issue for road construction.

Bonds to Be Voted.

Beaumont, Tex.—City will vote on issuing \$25,000 paving bonds.
Centerville, Tex.—District will vote July 27 on \$15,000 bond issue for road construction.
Lewisburg, W. Va.—City votes June 30 on \$16,500 bond issue for street improvement.
Oglethorpe, Ga.—Macon county votes July 20 on \$150,000 bond issue for road construction.
Wichita Falls, Tex.—City votes July 22 on issuing \$32,500 street-improvement bonds.

Contracts Awarded.

Aransas Pass, Tex.—City awarded contract for one mile of 14-foot concrete sidewalks.
Chattanooga, Tenn.—City awarded \$67,000 contract for vitrified brick and asphalt paving.
Galveston, Tex.—Galveston county awarded \$28,000 contract for five-mile road.
Jacksonville, Fla.—City awarded \$14,500 contract for vitrified-brick paving, \$26,000 contract for vitrified-brick paving and \$70,000 contract for asphalt.
Lockhart, Tex.—Caldwell County Road Precinct No. 4 awarded contract for six miles of macadam road.
Marlin, Tex.—City awarded contract for 5000 square yards of granitoid paving.
Memphis, Tenn.—City awarded \$17,000 contract for creosoted wood-block paving.
Nashville, Tenn.—City awarded contract for sidewalks and curbing.
New Orleans, La.—State awarded \$28,000 contract for road.
Norfolk, Va.—City awarded contract for boulevard; \$8645 appropriated.
Norfolk, Va.—City awarded contract for concrete paving and curbing.
Troy, Ala.—City awarded contract for paving five miles of sidewalks.

Contracts to Be Awarded.

Brooklyn, Md.—Anne Arundel county receives bids until July 5 for one mile of grading and macadam surfacing.
Christiansburg, Va.—Montgomery county receives bids until July 6 for one-mile macadam road.

Collins, Miss.—Beat 3 of Covington county will award contract July 3 for 25 miles of road.

Jonesboro, Ark.—City has invited bids for one mile of street paving.

Lexington, Ky.—City receives bids until July 30 for macadam paving and macadam with asphalt binding.

Lumberton, N. C.—City will contract for paving to cost \$15,000.

New Iberia, La.—State receives bids until July 10 to construct road to Jeanerette.

St. Petersburg, Fla.—City receives bids until July 6 for vitrified brick paving and granite curbing.

Washington, D. C.—District Commissioners receive bids until July 7 for cement sidewalks.

Waycross, Ga.—City invites bids for sidewalk paving; to pave 30 miles this year; \$50,000 expenditure.

Forsyth County, North Carolina.

Forsyth county, in which Winston-Salem, N. C., lies, has just taken a forward step in good-road work in employing Mr. W. L. Spoon as county highway engineer. Secretary J. S. Kuykendall of the Board of Trade of Winston-Salem writes to the MANUFACTURERS RECORD that Mr. Spoon has been in the service of the National Government for seven years and more, and was highway engineer for North Carolina for two and a half years. He will give all his time now to Forsyth county, which has an annual fund of about \$75,000 for road work. In 10 years the tax valuation of the county has grown from \$7,715,283 to \$19,809,414.

Street Paving to Cost \$101,500.

The city of Jacksonville awarded three contracts last week for paving to cost \$101,500. These contracts were placed as follows: To Georgia Engineering Co. of Augusta, for vitrified brick on Riverside avenue; to Engineering & Paving Co. of Jacksonville, for vitrified brick on 3d, Hubbard and Newman streets; to George R. Foster, Jr., of Jacksonville, for asphalt on Riverside avenue.

For Five Miles of Road.

Road improvements at Gadsden are evidently being given attention, as Galveston county awarded contract last week for constructing five miles of road. The cost will be \$28,491, and J. C. Kelso of Galveston is the contractor.

A \$67,000 Paving Contract.

Hamilton county has awarded the contract for paving Main street in Chattanooga. This contract calls for a 14-foot vitrified brick center with an 11-foot strip of California asphalt on each side. It was awarded to the Southern Paving & Construction Co. at about \$67,000.

Wood Block Paving Cosing \$17,000.

Union avenue in Memphis will be paved with creosoted wood blocks at a cost of \$17,207, the contract having been awarded last week. This action is evidence that the city of Memphis is interested in providing for modern street surfaces. R. C. Huston of Memphis received the contract.

Notes.

In the year ended May 31, 1911, Georgia spent \$3,000,000 upon public roads.

Greenville county, South Carolina, has purchased for \$3000 a gasoline traction engine which it is estimated will do the work of 20 mules in road improvement at about one-fifth the cost of the mules.

It is reported that Mr. John Cuddey of Chicago has invested \$100,000 in tobacco lands near Robertsedale, Baldwin county, Alabama.

*A paper presented at the second New England Conference on Street Cleaning.

RAILROADS

[A complete record of all new railroad building in the South will be found in the Construction Department.]

HAWLEY GETS A RAILROAD.

Missouri, Kansas & Texas Interested in Wichita Falls & Northwestern.

The Missouri, Kansas & Texas Railway Co., of which Edwin Hawley is chairman of the board, is reported to have purchased the Wichita Falls & Northwestern Railway, of which J. A. Kemp of Wichita Falls, Tex., is president. There appears to be good grounds for the report, although no official announcement has been made.

Mr. Hawley telegraphs the MANUFACTURERS RECORD thus: "Can give you no information regarding reported purchase of Wichita Falls & Northwestern Railway." Mr. Kemp remains silent.

Dispatches from Chicago say that the deal was closed by Alfred L. Baker & Co., which firm, with the National City Bank, both of Chicago, were the principal members of a syndicate which floated the Wichita Falls & Northwestern bonds, that will continue as a lien on the property, the deal consisting of the sale of the capital stock of \$1,000,000, for which it is said \$200 a share was paid.

A telegram from St. Louis says that the Missouri, Kansas & Texas Railway is aiding in the construction of an extension of the Wichita Falls line from Hammon to Woodward and Supply, Okla., about 150 miles, for which contract has been let to the Texas & Oklahoma Construction Co. of Wichita Falls, and President Kemp has been in St. Louis conferring with the Missouri, Kansas & Texas officials regarding the work. The grading of the extension is being sublet to small contractors, about 30 miles having thus far been put out, but the bridges and buildings will be erected by the construction company. The route lies through rough country. R. A. Thompson, chief engineer, Wichita Falls, Tex., has charge of construction.

A press report from Wichita Falls quotes Frank Kell, vice-president and general manager, as saying that the report of a deal arose from the fact that the Missouri, Kansas & Texas will aid in financing the extension. President Allen of the last-named company is reported in St. Louis as admitting this.

The Wichita Falls & Northwestern Railway, which connects with the Missouri, Kansas & Texas at Wichita Falls, has now 265 miles of road, consisting of a main line from Wichita Falls to Hammon, Okla., 153 miles, and two branches, one from Altus to Wellington, Tex., 56 miles, and another of the same length from Wichita Falls to Newcastle, Tex. The extension from Hammon is to connect with the Santa Fe at Woodward, Okla. The road is reported to have prospered. The line to Newcastle is known as the Wichita Falls & Southern.

The directors include J. A. Kemp, Frank Kell, C. C. Huff, R. E. Huff, Wiley Blair, J. N. Harris, C. C. Doneghy, H. M. Hughes and N. Henderson of Wichita Falls; C. A. Swartz, J. H. Mounts, W. A. Stinson and J. E. McConnell of Frederick, Okla.; I. H. Kempner, D. W. Kempner and M. Lasker of Galveston, Tex.

MAY BUILD TO TIDEWATER.

Washington, Potomac & Chesapeake Asks for Authority on Bond Issue.

The Washington, Potomac & Chesapeake Railway Co., of which Henry W. Watson, Franklin Bank Building, Philadelphia, is president, has applied to the Public Service Commission of Maryland for authority to issue \$2,000,000 of 5 per

cent. 30-year bonds and to increase the capital stock from \$500,000 to \$2,000,000. The road now has 23 miles of line between Brandywine, a station on the Pennsylvania Railroad in the southern part of Maryland, and Mechanicsville, and it is proposed to extend from Mechanicsville to Esperanza, 24 miles, and thence to Point Lookout, also 24 miles. In the other direction an extension from Brandywine to a point near Bennings, in the District of Columbia, 17 miles, is projected. This would make 65 miles of entirely new construction besides the rebuilding of the existing road. A hearing on the application is to be held July 12.

Several times it has been reported that the owner of the road would build the extension to Esperanza, but as often nothing was done. It is now rumored that the Pennsylvania Railroad is behind the move just started, and that the construction will be undertaken. It is further reported that Frank B. Jones of Philadelphia has obtained an option on or has purchased the interest of Mr. Watson for Fisk & Co. of New York. An engineering estimate has been made by Wm. H. Forsythe of Philadelphia about the proposed construction. Inquiry of Mr. Watson elicited the reply that no statement was to be made at present.

New Equipment, Rails, Etc.

The Missouri Pacific, according to a report from St. Louis, will purchase immediately 50 freight locomotives. Bids are being prepared by different builders.

H. H. Mayberry, Nashville, Tenn., president of the Fidelity Securities Corporation, which will build the Nashville-Gallatin Interurban Railway, says it wishes to hear from bridge builders as to the following bridges: One truss, 100 feet; one through girder, 60 feet; one deck girder, 60 feet; one deck girder, 65 feet; delivery to be made at Nashville within 60 days.

The International & Great Northern Railway is reported to have ordered from the Baldwin Works, Philadelphia, nine locomotives.

The People's Electric Railway, Muskogee, Okla., is reported to have purchased two McKen motor cars from the McKen Motor Car Co., Omaha, Neb.

The Piedmont Traction Co. is reported to have ordered 6 and the Greenville, Spartanburg & Anderson Railway 17 high-speed interurban electric cars from the Jewett Car Co., Newark, O.

The Baltimore & Ohio, according to a market report, has ordered from the American Bridge Co. of New York 4000 tons of bridge steel.

The Louisville & Nashville is reported to have ordered 1800 tons of steel from the American Bridge Co.

The Atlantic Coast Line, says a market report, has ordered 450 tons of steel from the McClintic-Marshall Construction Co., Pittsburg.

The Kansas City Southern is reported to have ordered 4800 tons of rails from the Pennsylvania Steel Co., Steelton, Pa.

Brownwood to Rising Star.

A letter from Brownwood, Tex., gives some interesting information about the proposed railroad from there to Rising Star, Tex., which will, it is expected, be completed. About two years ago residents of Brownwood undertook to build the line with local capital, intending to rely upon future financing for extensions, but the dry weather in 1909 and 1910 interfered with the raising of local funds and the work was suspended after about \$150,000 were spent, because, owing to a State law, outside capital could not be interested.

Recently, however, Brooke Smith, banker; Lee Watson, hardware merchant, and D. F. Johnson, secretary of the Com-

mercial Club at Brownwood, as a committee closed a deal with a large company to take the line and complete it to Rising Star. Work will be resumed July 1 by the new owners, and it is to be finished this coming fall.

Mr. Johnson writes that under the original plan there were over 700 subscribers to the railroad fund, every one being enthusiastic for the line, and 30 per cent. had been paid in when work was stopped. Brownwood is on the Santa Fe and the Frisco lines, and the road as proposed would have reached Cisco, on the Texas & Pacific, about 50 miles north. Rising Star is about 27 miles north of Brownwood.

Red Bay to Rockwood, Ala.

The Tennessee & Tombigbee Railroad Co. has been incorporated at Russellville, Ala., with headquarters at Red Bay, Ala., to build the proposed line recently described by A. J. Hackett, who is president of the company. A dispatch from Russellville says that 25 miles will first be built from Red Bay to Rockwood, and construction will begin August 1 to August 15. The charter provides that the company may build from Red Bay to Guntersville, about 100 miles, although Mr. Hackett named Decatur, which is about 70 miles from Red Bay, as the prospective terminus. Among the towns on the route are Newburg, Mount Hope and Moulton. Red Bay is on the Illinois Central Railroad, and Rockwood is on the Northern Alabama, a division of the Southern Railway. The incorporators are A. J. Hackett, E. A. Smith, E. G. Bolling, O. O. Wade, G. W. Shaw and B. C. Paulk of Red Bay; W. F. Wallace and M. Z. Bynum of Corinth; the Foster-Greighton-Gould Company of Nashville and Rockwood; W. A. Orman, R. L. Bomen, Travis Williams and W. H. Norris of Russellville, and J. C. Williams of Atwood, Ala.

Would Make Important Link.

The Harriman, Knoxville & Eastern Railroad Co., which is building a line east from Harriman, Tenn., to Oliver Springs, about 17 miles, has, according to a dispatch, nearly completed the grading, and will begin tracklaying within two weeks. It is expected that the grade will be finished by August 1 and the track by October 1.

While the people backing the construction have not appeared in the matter, it is believed that the line is designed to make a through route from Knoxville to Nashville by linking up the Louisville & Nashville and the Tennessee Central roads, the former reaching Oliver Springs and the latter Harriman. Such a route would be of great advantage to the Louisville & Nashville, especially in connection with its plans for extensive construction and improvements which were recently announced.

The officers of the Harriman, Knoxville & Eastern are C. E. Hendrick, president; W. A. Rockwell, treasurer; Henry M. Winslow, secretary, and W. J. Clarke, chief engineer, all at Harriman, Tenn.

Jelks to Beedeville.

The McCrory & Beedeville Southern Railroad, says an official, will build 16 miles of line from Jelks, Ark., via McCrory to Beedeville, Ark., 16 miles, through a practically virgin belt of hardwood timber with an output of about 40,000,000 feet this year. The route is level. G. G. McCrory is the contractor and chief engineer, and four miles have been constructed, with two more miles under way. An issue of \$50,000 of construction bonds will be voted immediately. The bridges will be all of lumber or pile, no steel or concrete being used. Connection will be made at Jelks with the Missouri Pacific Railway

and the Chicago, Rock Island & Pacific Railway; at McCrory with the St. Louis, Iron Mountain & Southern Railway. The directors are Clayton Hailey, president; E. L. Hamilton, vice-president; R. B. Keating, secretary and treasurer; J. H. Beidleman, W. B. Fakes, G. G. McCrory and L. L. Langton. R. B. Keating is secretary and treasurer. Headquarters at McCrory, Ark.

A Line on Texas Highlands.

The Texas, Gulf & Northern Railway Co. has been chartered in Texas to build a line from Bovina, on the Santa Fe, south to Midland, Tex., on the Texas & Pacific Railroad. It will be about 175 miles long through a tier of counties along the New Mexico border, and will traverse a region of tableland now without railroad facilities. It will run parallel to the new through line of the Santa Fe from Amarillo to Galveston, but some distance to the west thereof. The directors of the company are J. A. Underwood of Honey Grove, Tex.; J. D. Bedford, R. E. Underwood, Robert E. Davis, Mike C. Lemaster and J. M. Neeley of Amarillo, Tex., and J. F. Sadler of Weatherford, Tex.

Merger Finally Approved.

Dispatches from Richmond and Norfolk, Va., announce that the stockholders of the Virginia Railway & Power Co. and the Norfolk & Portsmouth Traction Co. have approved the merger of the properties, which will hereafter be controlled by the Virginia Railway & Power Co., of which Frank J. Gould of New York is president. The consolidation will, as heretofore described, include the electric street railways of Richmond, Petersburg, Norfolk and Portsmouth, besides other public service companies furnishing light and power.

Survey for an Extension.

The Virginia-Carolina Railway, a line 31 miles long in Washington county, Virginia, from Abingdon via Damascus to Konnarock, is surveying, says a dispatch, for an extension of about 50 miles via Jefferson, N. C., to Wilkesboro, N. C. W. E. Mingea, Jr., son of the president of the road, is quoted as saying that financing has been arranged for the work, and it will be pushed. This would make a connection between the Norfolk & Western Railway and the Southern Railway.

Railroad Notes.

It is announced that W. J. Tally has been appointed superintendent of the Bonlee & Western Railway at Bonlee, N. C. J. H. Dunlap is president.

The Birmingham & Southeastern Railway, formerly the Union Springs & Northern, has, according to dispatches from Union Springs, Ala., filed a mortgage to secure \$3,000,000 of bonds to provide for the proposed extension to Milstead, which, it is said, will be continued to Tallahassee, Ala. W. M. Blount of Union Springs is president.

The Houston & Texas Central Railroad, says a dispatch from Austin, Tex., has filed an amendment to its charter to build its contemplated line from Giddings to Stone City, about 40 miles, the latter being a terminus of the Hearne & Brazos Valley Railway. The line is to be used as part of a through route, and it is said that the Hearne & Brazos Valley will be rebuilt to handle the traffic.

A dispatch from Newport News, Va., says that the Albemarle Steam Navigation Co. has awarded a contract to the Newport News Shipbuilding & Drydock Co. to build two river steamboats, which are to be completed this year, if possible, for service on Albemarle Sound in North Carolina.

LUMBER

[A complete record of new mills and building operations in the South will be found in the Construction Department.]

Wood Distillation Process.

Wood Distillation Process.
for the destructive distillation of fat pine wood, as invented by Thos. W. Pritchard, is in operation at Wilmington, N. C. Mr. Pritchard claims to have found, after a series of experiments, that the success of the work depends on the temperature control. He found that the use of an oil bath was the most effective for giving this control. The process consists of the use of double or jacketed retorts, with a space between the inner and outer retorts for the circulation of the oil bath. The wood to be distilled is placed in the inner retort, and by means of a system of pumps the heated oil is pumped through the oil space. This oil is heated in a separate furnace and can be raised to any desired temperature. The turpentine is first distilled from the wood, and the temperature of the oil is so controlled that it is said nothing but the turpentine is taken off. As soon as the turpentine has been distilled out the temperature is raised until the light oils are taken off. Next the temperature is raised to temperature as high as 650 degrees, when the heavy oils are produced, leaving in the retort a residue of high-grade charcoal. The plant is reported to be producing at the rate of 35 gallons W. W. turpentine, 11 gallons of light oils and 97 gallons of heavy oil from a cord of wood weighing 4000 pounds, and there is left 1000 pounds of charcoal. It is said that this process is practical as an adjunct to any sawmill cutting fat pine lumber. The National Wood Distilling Co., controlling this process, will, it is stated, erect a commercial plant in Wilmington, and it is the intention to promote the building of subsidiary plants on a profit-sharing basis. The officers of the company are: H. M. Chase, president; Thos. W. Pritchard, vice-president, and James Kyle, secretary and treasurer.

Texas Lumber for Mexico.

A dispatch from Galveston says:
"Opening up what promises to be another industry for Texas ports, a barge line carrying lumber to the shallow ports of Mexico, there have been loaded here two barges containing 500,000 feet of lumber for Tuxpan. The shipper is F. A. Langbehn, the lumber going to S. Piersons' Sons, Ltd., the owners and promoters of large oil fields along the Tuxpan River. According to Mr. Langbehn, it is impossible to get vessels of light draft with sufficient cargo carrying capacity to make the shipment of lumber into this part of Mexico by water profitable, and if this barge venture is a success it is possible that special barges will be built with propelling power to be furnished by gasoline engines."

Daily Output 1000 Barrels.

About 1000 apple barrels daily will be the capacity of a plant to be established at Charles Town, W. Va., by the Shenandoah Valley Barrel Co. This company will erect a two-story 60x120-foot mill construction building to contain the barrel manufacturing machinery, all of which has been purchased. D. M. Swink of Winchester, Va., and associates form this company.

To Develop Arkansas Timber.

Arkansas timber land will be developed by the Osage Timber Land Co., which has been chartered with \$250,000 capital stock by J. S. Lakin, J. S. Hill, T. C. Townsend and associates of Charleston, W. Va. This

company has purchased and will develop 25,000 acres of land in the Ozark Mountains. Its property is heavily timbered with hardwoods, principally oak.

To Rebuild \$100,000 Plant.

The Virginia Manufacturing Co. of Suffolk will rebuild its \$100,000 veneer plant, which was burned last week. This plant employed 500 persons, and its output was crates, barrels, butter dishes and other similar products.

Big Texas Purchase Completed.

The Long-Bell Lumber Co. of Kansas City has completed the purchase of the Texas property for which it was recently reported negotiating. This purchase includes 150,000 acres of timber land and mills at Doucette, Trinity and New Willard, with a capacity of 100,000,000 feet of lumber.

To Manufacture Butter Dishes.

The International Butter Dish Corporation of Norfolk has been chartered with \$100,000 capital stock to manufacture butter dishes. Its officers are: President, Burton Silance of Norfolk; general manager, C. F. Olm of Portsmouth, Va.; secretary-treasurer, Carlton Brinkley of Norfolk.

TEXTILES

Southern Textile Association.

[Special Cor. Manufacturers Record.]

Greenville, S. C., June 26.

The annual convention of the Southern Textile Association will be held in this city beginning July 1. The committee of arrangements for the meeting has been busy, and a good time socially as well as materially is anticipated for all those who will attend. It is expected that the crowd will number from 400 to 500 people. The visitors will be taken to every point of interest in the city on the street cars. Addresses of welcome will be made by Mr. Thomas F. Parker in behalf of the cotton mills, Mayor J. B. Marshall in behalf of the city, and Mr. H. J. Haynsworth in behalf of the Board of Trade, of which he is president. The people of Greenville realize the largeness and importance of the meeting, and are entering into the plans set forth by the committee with a great deal of enthusiasm, in view of giving the visitors a good time during their stay.

ROY G. BOOKER.

To Acquire Additional Mills.

The Parker Cotton Mills Co. of Greenville, S. C., mentioned last week as to vote on increasing capital stock from \$10,000,000 to \$15,000,000, plans to acquire several additional properties that include the Pine Creek Manufacturing Co. of Camden, S. C., and the Ottarway Mills of Union, S. C. These two companies have 40,448 spindles and 1042 looms.

The Greers Enlargement.

The Greers Manufacturing Co. of Greer, S. C., will invest about \$250,000 for the addition mentioned last week. It will increase its plant from 10,000 to 25,000 spindles and complementary machinery. Lockwood, Greene & Co. of Boston are the engineers in charge.

The Harnett Company.

The Harnett Manufacturing Co. of Barclayville, N. C., has been chartered with \$25,000 capital stock by A. B. Currin, W. J. Alston and Sandy Adams.

J. S. Turner, Will Hill, A. H. Trendway and others of Ozark, Ark., plan erection of cotton mill.

FOREIGN NEEDS

To Represent Manufacturers.

Ralph W. Ashcroft, Racine, Wis., writes to the MANUFACTURERS RECORD:

"My correspondents have been mainly interested in canned meats, fish, vegetables, fruit, hams, bacon, etc. However, they are branching out, and would be glad to consider any lines for which there is or may be a market in Great Britain. A member of the firm will be here in August or September for arranging new agencies, and I will be glad to be put in touch with anyone interested in the British market. I expect to leave next fall on a trip through Asia, Africa, Australasia and Latin America, as per enclosed itinerary, and in addition to the house of whose extensive foreign agencies and sales I now have charge, I plan to also represent two or three first-class lines. If this would interest any of your clients, I shall be glad to have you mention it to them. I have been over most of the ground before, and am, therefore, fully familiar with local conditions in the various countries."

Manchester Textile Exhibition.

Frank Nasmith, editor of the *Textile Recorder* of Manchester, England, writes to the MANUFACTURERS RECORD:

"We are organizing a textile machinery and accessories exhibition in Manchester for October of this year, and shall be obliged if you can call attention to it in the pages of your journal. Already we have booked space for a number of influential firms, and there is no doubt that the exhibition will be a complete success."

Macon Secures Chinaware Plant.

The Chamber of Commerce, E. H. Hyman, secretary, Macon, wires the MANUFACTURERS RECORD as follows:

"Large chinaware plant landed; 45 acres of ground given free; 200 employees; payroll \$10,000 per month; will move from Akron, O.; first chinaware plant in the South; thousands of acres of kaolin abound around this city; central location; raw material and good shipping facilities won out."

The Summit China Co. will establish this plant, and will have 11 kilns, with accompanying equipment. Its plant will occupy five acres of land, and the remaining 40 acres will be developed for an industrial city. About 300 tons of coal, over 150 tons of clay and other material will be used each month, while 200 tons of packing straw will be required annually by the plant. The company wires the MANUFACTURERS RECORD that details are not ready for announcement.

The Summit China Co. wires the MANUFACTURERS RECORD that it is too early for details to be announced.

Mobile & Ohio Pier and Warehouse.

The Mobile & Ohio Railroad will construct a pier and warehouse at Mobile, and the company's general manager, R. V. Taylor of that city, wires brief details to the MANUFACTURERS RECORD as follows:

"Adams street pier will cost approximately \$150,000; will have three berths for ocean-going steamers of 440, 350 and 410 feet, respectively, in length, aggregating 1200 linear feet; will be constructed of creosoted material throughout, and slips adjacent dredged to a minimum depth of 23 feet below mean low tide; will have double-story warehouse, with depressed tracks therein; 50,000 square feet floor area of either floor; to be of heavy framed mill construction; first floor of concrete; date of opening bids not definitely decided upon."

MINING

A VIRGINIA MINERAL REGION.

Varied Resources in a Southwestern County of the State.

The range of mineral occurrence in the mountain county of Bland in Southwest Virginia comprises building stones, pyrite, pyrrhotite, arseno-pyrite, fluorite, silica, ochre, manganese, feldspar, asbestos, talc, and soapstone, fuller's earth, barite and gypsum, cement materials, clays, copper, zinc and lead, iron ores and coal of the highest steam and coking grade, according to Mr. Edward S. Farrow of New York, who has made an exhaustive analytical study of the field. Regarding these resources Mr. Farrow writes to the MANUFACTURERS RECORD:

"The Virginia portion of the Appalachian coal field, which includes the extreme southwest counties, and to which the State owes its high rank as a coal producer, is Upper Carboniferous in age. The Southwest Virginia coal field forms the southwestern part of the Kanawha basin, and comprises Buchanan, Dickenson, Lee, Russell, Scott, Wise and Tazewell counties, extending into Bland county. Of these, Wise and Tazewell counties are at this time large producers, while the remainder of the territory contains large reserves of coal awaiting further development and transportation facilities. The Bland-Wythe counties coal field has promising seams appearing in the Price sandstone near Bland Courthouse, Sharon Springs and in the western part of Bland county, and to the south of Little Walker Mountain. Geological conditions point unerringly to the conclusion that coal-bearing beds, the extensions of the beds beneath the Pocahontas or Flat-Top, the Big Stone Gap, the Montgomery-Pulaski counties and the Bland-Wythe counties fields, are to be found at varying depths, but of continuous habit, throughout the entire territory bounded by the aforementioned fields. None of the formation can be traced through the entire field or territory, and in general the formations consist of overlapping lens-shaped beds, which explains the gradual thickening and thinning. On account of this variation it is difficult to correlate different beds throughout the entire region, or even in the restricted portion of Bland county. The last word in the correlation problem cannot be said until the large undeveloped areas intervening between the developed regions have been thoroughly explored.

"Red hematite, brown hematite, magnetite and carbonate iron ores have a more or less general occurrence throughout Bland county, which has the Oriskany and Clinton horizons on the slopes of the mountains. It is along the lower flanks of the mountains and on the slopes of the intervening ridges that the most important features of the district are found. Here the formation is made up of coarse gray and brown sandstones, and everywhere throughout their locality in this section they carry with them heavy, persistent and valuable strata of brown iron ores. Their outcrops so frequently and extensively displayed along the base of every mountain and on the slopes of every intermediate ridge, point out the existence of a series of continuous beds of ore that are of great thickness, and which extend for many miles. A selected sample of this ore taken from Laurel Creek analyzed as follows:

Sesquioxide of iron.....	79.17 per cent.
Silica.....	2.16 per cent.
Sulphur.....	.366 per cent.
Phosphorus.....	1.127 per cent.

"Extensive outcrops of the ore appear on the slopes of Flat-Top Mountain above No Business Creek.

"The ores of lead and zinc in Bland

county and adjoining territory range from lower Cambrian to Carboniferous in age, and are of sedimentary origin. Geologically these ores are confined to a single formation, magnesian limestone of Cambro-Ordovician age, known as the Shenandoah limestone in Virginia and the Knox dolomite in Tennessee. The Shenandoah limestone is correlated with the Knox dolomite, and includes in addition, at least, 1500 feet of Cambrian strata beneath the Knox dolomite. The sulphide ores, including zinc blende, galena and pyrite, all closely associated, uncovered in the vicinity of No Business Creek and Kimberling Creek, show a predominance of zinc blende of remarkable purity, the pyrite being distributed through the limestone in quantity insufficient to be harmful. The following analysis of a specimen of the blende from No Business Creek, above Holly Brook, indicates the general character of the ore:

Zinc.....	63.07 per cent.
Sulphur.....	32.16 per cent.
Silica.....	.21 per cent.
Lime.....	.32 per cent.
Iron.....	4.44 per cent.

"Limonite is the principal iron ore in association with the zinc ores, while hematite and black oxide of manganese are less frequent associates.

"Valuable and important cement materials are found in pure and argillaceous limestone of Cambrian and Ordovician age, and in the calcareous and argillaceous phases of the Ordovician shales. Bland county, and in fact the entire Valley of Virginia, is underlain by these limestones, the shales outcropping all along the bases of the bounding mountains. The area between Flat Top and Wolf Creek Mountains, and especially in the vicinity of Cluxi, is prominent as a region containing the raw materials for the making of cement, but comparatively little has heretofore been noted or published upon its detailed stratigraphy.

"Both residual and sedimentary clays are distributed throughout Bland county in deposits of variable thickness. The mountain provinces of Virginia contain clay resources of very great value. Associated with coals are beds of shale which after investigation and development will become a valuable source of revenue.

"Glass, moulding and building sands occur in commercial quantities throughout Southwest Virginia. Bland county has a wide distribution of deposits in considerable quantities along its stream courses. Between Kimberling and No Business Creeks there are large beds of glass sand, comparatively free from organic compounds. Both calcareous and greensand types of marl are developed throughout the valley region of Virginia west of the Blue Ridge. These marls are mixtures of calcium carbonate and clay, occurring naturally with more or less siliceous sand.

"The geologic conditions are quite unlike in the different copper areas of Virginia. In Southwest Virginia the 'Gossan Lead' of the Floyd-Carroll-Greysen plateau, indicative of the character and mode of occurrence of deposits in neighboring localities. As a rule, the rocks are mostly altered sediments, and faulting of the overthrust predominates. Several small outcrops on the Eastern slope of Wolf Creek Mountain, Bland county, consist essentially of pyrrhotite with stringers of chalcopyrite. The pyrrhotite is more or less admixed with micaceous material, and in places interleaved with tale. Numerous good specimens of bornite, chalcopyrite and malchite have been obtained from openings in schists not far removed from porphyry contacts in Buckhorn, Rich, Brushy, Flat Top and Little Walker Mountains."

Mr. Farrow has located granite in Lit-

tle Walker Mountain and in the vicinity of No Business Creek, hornblende syenite on the eastern slope of Wolf Creek Mountain, gneiss along New River and some of its tributaries, mica schist along Hunting Camp Creek, trappean rocks between Kimberling and No Business Creeks, black slate of moderately fine texture in several sections, as well as sandstones, limestones and shales.

The mineral pyrite, known as iron pyrites, is widely disseminated, and a specimen between Wolf Pen Branch and Wilderness Creek shows 47.13 per cent. of sulphur, 43.88 per cent. iron, 1.16 per cent. iron oxide, 6.16 per cent. silica, .83 per cent. zinc and .39 per cent. lime.

On the western slope of Flat Top Mountain, overlooking No Business Creek, there is a deposit of manganese ores very similar in appearance and occurrence to the manganese ore in the Cave Spring district at Reynolds Mountain, Floyd county, Georgia. It analyzes 50.71 per cent. metallic manganese, 8.43 per cent. metallic iron, .00 per cent. phosphorus and 11.31 per cent. silica.

Outcroppings on the slopes around the edges of low places at and near No Business Creek are indicative of large areas of fuller's earth. "Heretofore," says Mr. Farrow, "but little fuller's earth has been located in or near this territory, and the simplest methods have been used in preparing the material. When these areas are topographically surveyed and the deposits mapped, they will doubtless compare favorably with the Florida and Georgia beds."

Barite is found widely distributed, and indications of gypsum of excellent quality have been noted near Kimberling Springs and along Kimberling Creek. An outcropping of soapstone of good quality is found near Wolf Pen Branch.

Brush Creek Company.

The Brush Creek Mining & Manufacturing Co. of Warren, Ky., will develop 750 acres of land, and the daily output will be 1000 tons of coal. About \$10,000 worth of compressed-air machinery has been purchased for the plant. This company was organized recently, and its officers are: President, T. E. B. Siler of Charleston, W. Va.; vice-president, L. M. Soth of Jellico, Tenn.; manager, R. L. Wheeler of Warren.

Kentucky Companies Merged.

The Log Mountain Coal & Coke Co. of Pineville, Ky., has been organized with capital stock of \$600,000 and preferred stock and bonds for \$300,000. It merges the Poplar-Hignite Coal & Coke Co., the Clear Creek Coal & Coke Co., the Caney Creek Coal & Coke Co. and the Kelly Coal Co., all located on the Chenoa branch of the Louisville & Nashville Railway near Pineville.

To Drain 10,000 Acres.

[Special Cor. Manufacturers Record.]

Lake Arthur, La., June 15.

The Alluvial Lands Co. of Lake Arthur, La., E. C. French, president, and W. S. Streater, secretary and treasurer, has signed contracts with the Fenwick Excavator Co. to drain and develop 10,000 acres of wet prairie land just south of Lake Arthur, La. This tract is to be developed in units of about 1000 acres each, and the developments will consist in protection levees, canals, drainage ditches, pumping machinery and everything necessary for a complete development, ready for settlers. The first unit is to be completed not later than last of March, 1912, and the last unit is to be delivered for sale by June 30, 1914. T. H. Mandell of Lake Charles, La., is in charge as supervising engineer. ROBERT P. HOWELL.

MECHANICAL

New High Efficiency Blower.

The American Blower Co. of Detroit writes as follows:

"The blowing of scale from dies can usually be accomplished with an air pressure of from 12 to 14 ounces per square inch, but in the motor car industry, for example, where a large proportion of the work is on deep-cut dies, a considerably higher pressure must of necessity be maintained. The American Blower Co.'s recently-developed special centrifugal pres-

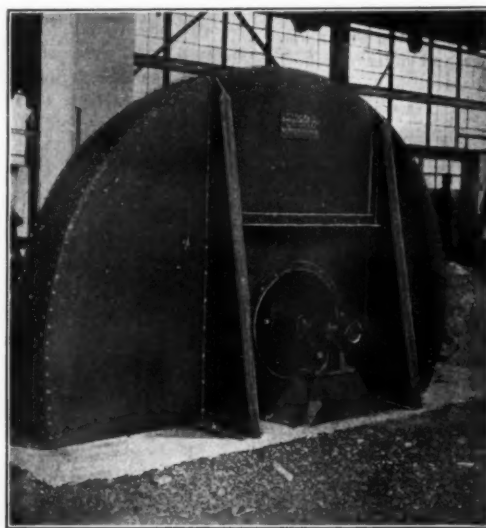


FIG. 1.—NEW HIGH-EFFICIENCY BLOWER.

sure blower is admirably adapted for this service, as it is designed for pressures up to 24 ounces per square inch and is still applicable for direct connection to standard speed electric motors. Such a scale-blowing rig for deep-die work has recently been installed at the Packard Motor Car Co., Detroit. The blower is an 'ABC' special high-pressure machine (see Fig. 1 herewith), having a wheel 82 inches diameter, direct connected by means of a flexible strap coupling to a 50-horse-power 950 R. P. M. direct-current motor. The motor operates at a trifle under full load with all the nozzles and deflecting pipes in service. The blower maintains a pressure

installation being shown in Fig. 2 herewith. They are also useful for forge and cupola service."

The Greene Gasoline Traction Engine

A new form of gasoline tractor has been designed by L. A. Greene of Greenville, S. C., to do the work both of a tractor and an automobile and also to furnish a motive power for the various agricultural uses. The working parts are similar to an automobile except that it has only three wheels. The engine develops 50 horse-power, and, if necessary, weights designed for the purpose may be placed over the two drive



FIG. 2.—NEW HIGH-EFFICIENCY BLOWER.

of 22 ounces over 54 3/4-inch diameter scale blowing nozzles, shown to the left in Fig. 2, and 24 deflecting pipes having an aggregate free area of 34 square inches. The velocity through these openings is 24,000 feet per minute. To state this in a more spectacular way, this velocity is over 4 1/2 miles per minute. In casting about for a machine suitable for this work, an air compressor might ordinarily be purchased, but the above-described special high efficiency blower will effect a guaranteed saving in power and maintenance cost, as well as conserving about 50 per cent. of the initial cost. Blowers of this type are being successfully employed for furnishing blast to oil furnaces, such as

wheels in order to give great tractive power. In this way it may be used as a heavy traction engine to pull plows, uproot stumps, for reapers and the various other uses to which tractors or gasoline engines may be devoted on a farm. When light the tractor weighs less than 1000 pounds, and on a good road will make a speed of 10 to 15 miles per hour; when weighted down for heavy traction it will make from three to four miles per hour.

The patent rights have been applied for, and the construction is described as follows: The engine is applied as in the ordinary motor truck except that the weight is supported mostly by the two driving

wheels and the third wheel located at the front is used for steering. This wheel is moved by a lever manipulated by the foot of the driver on the driver's seat, which is in the rear of the gearing. The shape of the frame is somewhat similar to that of a flat-bottom boat.

The designer has closed a contract with the Andrews-Carter Iron Works of Spartanburg to make a number of these engines, and the first one will be ready for demonstration in a short time.

Mr. Greene is also the inventor of the "Farmer's Cotton Grader," and has manufactured and sold a number of them in different parts of the South, where they are said to have given general satisfaction.

Construction Department

TO OUR READERS!

In order to follow up properly the Construction Department items, please bear in mind the following statements:

EXPLANATORY

The MANUFACTURERS RECORD seeks to verify the items reported in its Construction Department by full investigation. It is often impossible to do this before the item must be printed or else lose its value as news, and in some items it is found advisable to make statements as "it is reported" or "rumored," and not as positive information. If our readers will note these points they will see the necessity of the discrimination. We are always glad to have our attention called to errors that may occur.

HOW TO ADDRESS

The name of one or more incorporators of a newly incorporated enterprise should always be shown on letter addressed to the official headquarters or to the town of the parties sought, as may be shown in the item. Sometimes a communication merely addressed in the corporate or official name of a newly established company or enterprise cannot be delivered by the postmaster. By following these general directions the postoffice will be enabled to deliver your mail promptly, although it is inevitable that some failure by the postal authorities to deliver mail to new concerns will occur.

WRITE PERSONAL LETTERS

In communicating with individuals and firms reported in these columns a letter written specifically about the matter reported will receive better and quicker attention than a circular. In most instances a return postal card or addressed and stamped envelope should be enclosed with letter.

"In correspondence relating to information published in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned."

The Daily Bulletin of the Manufacturers Record is published every business day in order to give the earliest possible news about new industrial, commercial, building, railroad and financial enterprises organized in the South and Southwest. It is invaluable to manufacturers, contractors, engineers and all others who want to get in touch at the earliest moment with new undertakings, or the enlargement of established enterprises. The subscription price is \$25 per year. On all advertising contracts in the Manufacturers Record for three months or longer a subscription for the contract period to the Daily Bulletin is included.

BRIDGES, CULVERTS, VIADUCTS

Ark., De Witt.—Arkansas county will erect 12 bridges: 30, 80, 100, 180, 544, 225, 80, 80, 50, 45, 106 and 365 feet long; all of steel, 16 feet wide, three-inch floor, with concrete abutments and footings; bids received by County Clerk, I. C. Gibson, until 10 A. M. July 22; L. C. Smith, County Judge. (See "Machinery Wanted.")

Ark., De Witt.—Arkansas county will construct 12 bridges during 1911; several levees to be widened and strengthened; corrugated-iron culverts to be placed at each crossing; L. C. Smith, County Judge.

Ark., Fort Smith.—Kansas City Southern Railway awarded contract to Arkansas Bridge Co. of Fort Smith to construct 21 steel bridges along railway's route.

Ark., Helena.—Phillips County Road Commissioners (John M. Quarles and others) will receive bids until July 5 for construction of two additional steel and concrete bridges: one 124-foot structure at Shell Bridge across Lick Creek, and a 135-foot bridge across Big Creek at Bonner Bridge; plans and specifications at County Clerk's office; Mr. Quarles in charge of work. (See "Machinery Wanted.")

Ark., Pine Bluff.—Jefferson county awarded contract to M. S. Hasie, Jr., Dallas, Tex., at \$3475 to construct three concrete bridges on Camden Rd.; C. M. Philpot, County Judge.

Fla., Cortez.—City of Cortez and vicinity is considering construction of bridge across north end of Sarasota Bay. Address Mana-

tee County Commissioners. (See "Road and Street Work.")

Fla., Jacksonville.—Duval County Commissioners awarded contract to Logan Concrete & Engineering Co. of Jacksonville at \$1451.70 to construct concrete bridge across Miller's Creek on Atlantic Blvd.; length 24 feet; Gall L. Barnard, County Engineer, Room 9 Courthouse. (Call for bids lately noted.)

Fla., Jacksonville.—Duval county will construct wooden bridge on Duval (Fernandina) Rd. over creek known as Dead River; also for constructing Duval county's half of bridge proposed over Nassau River, on Duval (Fernandina) Rd.; bids received until July 7; Gall L. Barnard, County Engineer. (See "Machinery Wanted.")

Ga., Columbus.—Central of Georgia Railway awarded contract to Gardiner & Posee of Columbus to construct concrete culvert over tracks at Sixth Ave. and Cemetery St.; cost about \$10,000.

Ga., Millen.—Millen & Newington Railroad (recently organized with E. S. Lane of Blitch, Ga., president) contemplates building two small bridges on proposed line from Millen to Newington.

La., Covington.—St. Tammany Parish Police Jury agreed to construct bridge connecting St. Tammany Parish with New Orleans.

La., Shreveport.—J. W. Elston, president of Bossier Parish Police Jury, Haughton, La., advises Manufacturers Record that bids will be called within a few days on building of substructure of Red River traffic bridge; Ira G. Hedrick, consulting engineer, Kansas City, Mo. (Plans previously noted as contemplating two 400-foot spans, with 1450 feet in steel truss approaches; cost about \$230,000.)

Miss., Greenwood.—Leflore County Board of Supervisors awarded contract to Virginia Bridge & Iron Co., Roanoke, Va., at \$14,680 for construction of steel drawbridge across Tallahatchie River at Minter City; plans and specifications by W. T. Young Bridge Co., Nashville, Tenn. (Recently noted.)

Miss., Hernando.—De Soto county contemplates \$25,000 bond issue for bridge construction. Address County Commissioners.

Miss., Meridian.—City contemplates constructing viaduct at Twenty-fifth Ave.; cost about \$150,000; engineers prepared plans. Address The Mayor.

Mo., Independence.—City defeated \$40,000 bond issue for bridge and culvert construction. Address The Mayor. (Recently mentioned.)

Mo., Kansas City.—Kansas City Southern Railway Co. awarded contract to Arkansas Bridge Co., First National Bank Bldg., Fort Smith, Ark., for supplying steel and erecting 21 new steel bridges to replace lighter structures on main line between Kansas City and Fort Arthur.

Mo., Rich Hill.—Bates County Commissioners, Butler, Mo., awarded contract to Stupp Bros. & Co., St. Louis, Mo., to construct four steel bridges on canal. (See "Drainage and Irrigation.")

Mo., Weldon Spring.—St. Louis, Kansas City Electric Railway has bill introduced in Congress for authority to construct bridge over Missouri River at Weldon Spring Landing.

Tenn., Nashville.—Fidelity Securities Corporation, Stahlman Bldg., builder of Nashville-Gallatin Interurban Railway, is asking bids on construction of four bridges; one 100-foot truss, one 60-foot through girder, 60-foot and 65-foot deck girders; all purchases and contracts made by H. H. Mayberry, president of Fidelity Securities Corporation. (See "Machinery Wanted.")

Tex., Galveston.—Galveston County Commissioners awarded contract to Haughton & Haughton of Galveston to construct wooden piling bridge over Highland Bayou on Galveston-Hitchcock Rd.; 20-foot span; John M. Murch, County Auditor. (Call for bids lately noted.)

Tex., Navasota.—Grimes county will construct two-span iron bridge; 80-foot concrete floor; no piers; contract to be awarded July 1; J. M. Ackerman, County Commissioner. (See "Machinery Wanted.")

CANNING AND PACKING PLANTS

Fla., Lake Weir.—Carney Investment Co. awarded contract to Charles O. Byrd, Tampa, Fla., at \$6238 to erect packing plant building; 70x100 feet; truss roof with 70-foot

span; concrete piers; plans by A. H. Johnson, Tampa, Fla. (Recently mentioned.)

Fla., Lake Weir.—Carney Investment Co. awarded contract to Chas. Bird, Tampa, Fla., for citrus-fruit packing plant; 70x100 feet; mill construction; cost \$6000; plans by A. H. Johnson. (Lately noted.)

Mt. Belair.—William Silver Company incorporated with \$100,000 capital stock by William Silver, Aberdeen, Md.; Meredith T. Jones, John J. Hallowell, Emory J. Kerrick and Francis J. Stokes, all of Philadelphia, Pa.; will acquire several canneries of Straubach & Silver Company.

CLAYWORKING PLANTS

Ga., Macon.—Chinaware.—Summit China Co., Akron, O., will build plant to manufacture art, table and toilet-ware and clay specialties; 11 kilns and equipment; site 5½ acres.

N. C., Rougemont.—Bricks.—W. A. Carver contemplates establishment of brick plant to have daily capacity of 30,000 bricks.

Tex., El Campo.—Commercial Club is promoting organization of company with \$4000 capital stock to establish brick plant; develop clay deposits.

Tex., Greenville.—Pottery.—Greenville Pottery Co., S. Robbins, Winnsboro, Tex., proprietor, is contemplating arrangements to establish pottery with 20,000 gallons daily capacity; lately noted. (See "Machinery Wanted.")

Tex., Waxahachie.—Bricks.—Waxahachie Brick & Earth Co. incorporated with \$60,000 capital stock by G. W. Coleman, E. C. McCartney and J. T. Spencer.

COAL MINES AND COKE OVENS

Ky., Letcher County.—Swift Coal & Timber Co. purchased 1000 acres of coal and timber land for development.

Ky., Perry County.—Eastern syndicate, represented by J. H. French of New York, purchased 3000 acres coal and timber land for development.

Ky., Pineville.—Log Mountain Coal & Coke Co. organized with capitalization of \$300,000; merges Poplar-Hignite Coal & Coke Co., Clear Creek Coal & Coke Co., Caney Creek Coal & Coke Co. and Kelly Coal Co.

Md., Barreilville.—Cumberland Basin Coal Co., Real Estate Trust Bldg., Philadelphia, Pa., is examining properties with view of undertaking further developments.

Tenn., Chattanooga.—Grand View Coal & Timber Co. will increase capital stock from \$100,000 to \$250,000; provide funds to pay for operating equipment already purchased and for 25,000 additional acres of land, increasing acreage to 32,000.

W. Va., Fayetteville.—Keffer Coal & Coke Co. will, it is reported, erect tipples, etc., and develop Hawkins tract of coal land.

CONCRETE AND CEMENT PLANTS

Va., Yorktown.—Jamestown Portland Cement Corporation, 651 Bullitt Bldg., Philadelphia, Pa., has awarded all contracts for construction and equipment of plant; daily capacity, 3500 barrels cement; work now progressing; contractor is American Cement Engineering Co., 315 Fifth Ave., New York; plans by James H. McLaughlin, Yorktown. (Previously mentioned.)

COTTON COMPRESSES AND GINS

Ark., Alma.—E. P. Dean & Son will erect buildings costing \$15,000 for cotton gin; machinery supplied; daily capacity, 45 to 50 bales. (Recently noted.)

Ark., Mountain Home.—H. W. Redus will install cotton gin.

Ga., Hartsville.—Colquitt County Ginning & Manufacturing Co. incorporated with \$5000 capital stock by J. H. Green, C. J. Smith, O. B. Gay, W. J. Perry and others.

Ga., La Grange.—J. H. Hardy, R. F. D. No. 1, will enlarge cotton gin.

Ga., Moultrie.—Moultrie Oil & Fertilizer Co. awarded contract to Say-Wilson Construction Co., Albany, Ga., to erect cotton gin. (See "Cottonseed-Oil Mills.")

Ga., Moultrie.—Farmers' Manufacturing Co. incorporated with \$25,000 capital stock by J. W. Coleman, G. L. Coleman, W. C. Eberly and others.

Ga., Moultrie.—Sigsbee Gin Co. incorporated with \$5000 capital stock by G. F. Tay-

lor, W. C. Vereen, W. M. Rowell, E. M. Smith and others.

Ga., Wesley.—Wesley Gin & Warehouse Co. organized with \$10,000 capital stock; John N. Youmans, president; W. K. Cook, secretary.

Okla., Romulus.—Romulus Gin Co. incorporated with \$6000 capital stock by W. B. Rowlett, Maud, Okla.; B. F. Bridges and J. C. Wells, McComb, Okla.

Tenn., Memphis.—Memphis Warehouse Co. has, it is reported, completed plans to invest about \$500,000 to double present capacity; add compress to three now operating, quadruple compress space, build 45 reinforced concrete construction warehouses with storage capacity of 1500 bales compressed cotton, construct 1½ miles railway tracks, etc.; enlarged plant to occupy 125 acres land; said to contemplate beginning construction in time to complete by September, 1912.

Tex., McAllen.—Farmers' Gin Co. incorporated with \$5000 capital stock by W. W. Weatherford, A. L. Strang and R. B. Baer.

Tex., McAllen.—Mr. Strang, El Campo, Tex., will erect cotton gin.

Tex., Plainview.—Malone Gin Co., R. C. Malone, president, purchased machinery for cotton gin recently noted; daily capacity, 60 bales.

COTTONSEED-OIL MILLS

Ark., Arkadelphia.—United Oil Mills, Hope, Ark. (recently noted to establish cottonseed-oil mill), is removing two-press mill from Okolona; increasing to three-press; has purchased additional machinery; company's force is erecting two-story brick 40x172-foot main building, 50x150-foot frame seed storage house and 50x100-foot frame hull house; authorized capital stock, \$500,000; W. Y. Foster, president; P. F. Clevver, manager; J. W. Winfrey, engineer in charge of construction.

Ga., Moultrie.—Moultrie Oil & Fertilizer Co. (recently reported incorporated with \$75,000 capital stock by G. F. Taylor and others) awarded contract to Say-Wilson Construction Co., Albany, Ga., to erect plant, comprising cottonseed-oil mill, cotton gin and guano factory; cost \$100,000. Mr. Taylor is acting treasurer. (See "Machinery, etc., Wanted.")

DRAINAGE AND IRRIGATION

Ark., Gleason.—Cadron Lock and Dam District organized with J. D. Collier, president, Conway, Ark., to construct concrete lock and dam across Cadron Creek at Gleason to prevent backwater from Arkansas River at flood stage from overflowing lands; district comprises 60,000 acres, and promoters estimate that at least 40,000 acres can be cultivated if protected from overflow.

Ark., Jackson County.—Cooks Slough Drainage District organized to drain flat lands by dredge ditch; engineer, Morgan Engineering Co., Memphis, Tenn., will have plans and estimates ready in fall.

Ark., Lake Village.—Chicot Drainage District comprises 370,000 acres; plans include construction of two main canals and laterals; Big Bayou and Bayou Macon will be opened; preliminary surveys not made nor engineer engaged. I. M. Worthington is president. (Recently noted.)

Ark., Mississippi County.—District No. 9 has final improvement plans by Morgan Engineering Co., Memphis, Tenn.; district includes smaller districts previously organized; 300 square miles area; about 300 miles main and lateral dredge ditches required; cost above \$1,000,000; bids probably called within 60 days; will take 15 dipper dredges about two years to complete work; contracts to be let by sections.

La., New Orleans.—E. M. Harris, Aurora, Ill., is considering, it is reported, purchase and reclamation of land in Louisiana.

Miss., Merigold.—Bids will be received until July 20 for construction of drainage canal 2½ miles long for Sunflower Plantation; excavation about 35,000 cubic yards; Hobbs & Brannon, Clarksdale, Miss., are civil engineers. (See "Machinery Wanted.")

Mo., Rich Hill.—Bates County Commissioners, Butler, Mo., awarded contract to Callahan Bros., Munn & Rele, Kansas City, Kans., at \$123,990 for additional work on Bates county drainage canal, consisting of deepening canal 10 feet and cutting four bends in Marais des Cygnes River; canal is 23 miles long; will drain about 40,000 acres; Stupp Bros. & Co., St. Louis, Mo., have contract for four steel bridges on canal.

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

S. C., McClellanville.—Frank G. Eason, Assistant State Engineer, Charleston, S. C., has made surveys and is preparing plans for system to drain 5000 acres in McClellanville Drainage District; Mr. Eason will also make surveys for district near Georgetown, where 20,000 to 30,000 acres are to be drained; other districts proposed are in Hampton and Beaufort counties.

Tex., Mercedes.—Hidalgo County Commissioners, Chapin, Tex., appointed Engineer Merriweather, chief engineer of La Donna Canal Co., to report upon feasibility, cost, etc., of improvements in proposed Llano Grande improvement district to prevent damage from flood waters; district comprises about 50,000 acres between Dinna and Cameron county line; proposed to vote on issuance of about \$150,000 of bonds.

La., Abbeville.—Isle Maronne drainage district voted \$19,000 bond issue for construction of drainage canals. Address District Commissioners.

ELECTRIC LIGHT AND POWER

Ala., Alexander City.—Industries Light & Power Co. organized; will construct dam to generate electricity for town supply.

Ala., Dothan.—City will vote on issuing bonds to construct electric-light plant and water-works; has plans and specifications for power-house costing about \$75,000. Address The Mayor.

Ala., Hartsell.—City will issue \$28,000 bonds for electric-light plant, water-works and sewers; plans completed; bids to be asked when bonds are sold; Navier A. Kramer, engineer, Magnolia, Miss.

Ala., Russellville.—City awarded contract to W. W. Moore, Birmingham, Ala., to construct electric-light plant and water-works; \$24,000 bond issue available; work to be under supervision of Edgar B. Kay, University of Alabama, Tuscaloosa, Ala.

Ark., Cotter.—E. B. Griswold & Co.'s electric-light plant, recently noted, is 35 kilowatts alternating current plant to be operated in connection with mill; may be increased later to furnish electricity to adjoining towns.

Fla., Port St. Lucie (not a postoffice).—J. H. Rogers, Sewall's Point, Fla., states plans are not perfected for recently noted electric-light plant at Port St. Lucie; bids to be asked.

Fla., St. Petersburg.—St. Petersburg Investment Co., H. Walter Fuller, manager, will have plans prepared by its consulting and advisory engineer, R. E. Ludwig, for power plant, car barns, etc.

Md., Baltimore.—City will construct ornamental incandescent street-lighting system on Lexington St. from Holliday to Gay St.; bids received until July 5; Robert J. McCuen, Superintendent of Lamps and Lighting, (See "Machinery Wanted.")

Mo., Springfield.—Federal Light & Traction Co. is having plans prepared for doubling capacity of plant.

N. C., Gastonia.—Spencer Mountain Power Co. will, it is reported, rebuild electric plant, burned at loss of about \$20,000.

N. C., Wilmington.—Savannah River Power Co., care of Hugh MacRae Co., is considering installation of auxiliary steam plant.

Okla., Grove.—Town voted on issuance of \$35,000 of bonds for installation of electric-light plant and water-works. Address The Mayor.

Okla., Pawhuska.—City submitted proposition to vote on \$10,000 bonds to improve and extend electric-light system. Address The Mayor. (See "Water-Works.")

Okla., Sentinel.—City will install electric-light plant; bids received until noon July 6 for equipment; J. M. Terry, clerk; engineers, F. Murch & Co., Clinton, Okla.; \$12,000 bond issue recently noted voted. (See "Machinery Wanted.")

Okla., Shawnee.—Shawnee Gas & Electric Co. will rebuild power plant burned at loss of about \$150,000.

Tenn., Memphis.—Memphis Union Station Co. has permit to erect proposed power-house; one story; brick; concrete foundation and roof; cost \$40,000; contract awarded to Murch Bros. Construction Co., St. Louis, Mo.

Tex., Bryan.—City will vote on \$30,000 bond issue for completion of electric light, sewerage and water-works systems in course of construction. Address The Mayor.

Tex., Clarendon.—Clarendon Light & Power Co. chartered with capital stock of \$25,000 by L. W. Chase, A. L. Chase and W. M. Odell.

Tex., Liberty.—Liberty Light & Power Co., R. E. Bowen, president, has purchased machinery for electric-light plant and 5-ton ice plant. (Recently noted to establish plant.)

Va., Alexandria.—Alexandria Electric Co. has placed contract for additional machinery; will remodel and enlarge power-house; plans prepared and work to be supervised by Francis R. Weller, Hibbs Bldg., Washington, D. C.; company will extend lines to various suburbs, including Virginia Highlands, Mt. Ida, Braddock Heights, etc.; all contracts let.

Va., Newport News.—City defeated \$150,000 bond issue for construction of electric-light plant; Maryus Jones, Mayor. (Recently mentioned.)

W. Va., Keystone.—Appalachian Power Co. purchased Keystone Light & Power Co.; will operate plant in connection with extensive water-power-electrical developments heretofore detailed; offices at Bluefield, W. Va., and 49 Wall St., New York.

W. Va., Monongalia County.—National Power Co. incorporated with \$25,000 capital stock by F. B. Parlorr, W. B. Beachler, E. J. Cole, W. H. Young and S. B. Kelley, all of Pittsburgh, Pa.

W. Va., Welch.—Appalachian Power Co. purchased Welch Water, Light & Power Co. will operate plants in connection with extensive water-power-electrical developments heretofore detailed; offices at Bluefield, W. Va., and 49 Wall St., New York.

FERTILIZER FACTORIES

Ala., Huntsville.—Farmers' Cotton Oil & Fertilizer Co., Walter Kelly, general manager, will have plans and specifications ready about July 1 for fertilizer and acidulating plant, recently noted to be added; cost of new plant about \$125,000; Peter S. Gilchrist, Charlotte, N. C., to be engineer. (Recently noted to increase capital stock to \$500,000.)

Ga., Moultrie.—Moultrie Oil & Fertilizer Co. awarded contract to Say-Wilson Construction Co., Albany, Ga., to erect guano factory. (See "Cottonseed-Oil Mills.")

Ga., Penfield.—Boswell Trading Co. incorporated by W. B. Boswell, A. J. Boswell and E. R. Boswell.

Md., Baltimore.—John S. Armstrong, 1200 Eutaw Pl., is interested in plan to establish fertilizer factory on river front; reports state annual capacity of 50,000 tons is proposed.

FLOUR, FEED AND MEAL MILLS

Tex., Bonham.—Steger Milling Co. chartered with capital stock of \$30,000 by John P. Steger, C. F. Steger, C. L. Bradford and John W. Russell.

FOUNDRY AND MACHINE PLANTS

Ala., Mobile.—Boilers.—Gulf City Boiler Works, W. M. Evans, president, purchased White Line Railway power plant and car-barn property for about \$45,000 and will equip for boiler manufacturing; structure to be remodeled at cost of about \$5000 and additional machinery purchased at cost of \$15,000.

Miss., Moss Point.—Gas Engines, etc.—Gulf Coast Automobile & Gas Engine Co. chartered with \$10,000 capital stock by J. G. B. Rouse, M. A. Victor and M. A. Falls.

N. C., Edenton.—Machine Shops.—Company organized with \$25,000 capital stock and J. C. Martin president; J. M. Phillips, vice-president; H. A. Yert, manager, and J. A. Mitchener, secretary-treasurer; operate machine shop.

N. C., Selma.—Smithfield Garage & Machine Co., Jas. H. Kirkman, secretary-treasurer, Smithfield, N. C., purchased plant of Selma Iron & Machine Co., including machine shop, iron and brass foundry; proceeding with construction of brick and iron buildings; 40x115 and 50x100 feet; will purchase additional machinery; J. R. Lewis in charge of machine department. (See "Miscellaneous Enterprises" under Smithfield, N. C. See "Machinery Wanted.")

Okla., Bartlesville.—Union Machine Co. (lately noted as Petroleum Machine Co., H. G. Durnell, manager, has taken over buildings and equipment of Bartlesville Foundry & Machine Co.; will install additional machinery.

Tex., Houston.—Galveston-Houston Electric Railway will erect machine shop and car-house; brick construction; contract for grading site awarded to Hart & Ford.

Tex., Waxahatchie.—Plows.—Black Land Shedder Plow Co. incorporated with \$6000 capital stock by G. W. Coleman, R. J. Coleman and J. E. Coleman.

GAS AND OIL DEVELOPMENTS

Ga., Atlanta.—Tennessee Oil & Gas Co., 530 Candler Bldg., J. R. McCollum, president, Newnan, Ga., will purchase equipment for

oil development. (See "Machinery Wanted.")

La., Caddo Parish.—Godchaux Oil & Development Co. incorporated with \$40,000 capital stock to develop oil land in Caddo Parish; L. C. Darragh, president; H. C. Chisolm (president Diamond Paper Co.), vice-president; M. Levy, secretary; P. M. Godchaux, treasurer; all of New Orleans, La.; offices at 912 Gravier St., New Orleans.

La., Jennings.—Morris Oil & Mineral Co. incorporated with \$300,000 capital stock to drill for oil, gas, etc.; William Baler, president; Z. C. Baler, first vice-president; N. L. Miller, second vice-president; Frank H. Morrical, secretary; Charles S. Anderson, treasurer.

La., Jonesboro.—Jackson Oil & Development Co. incorporated with \$100,000 capital stock by R. C. Culpepper, R. A. Netherland, G. W. Saddler, W. L. Bagwell and others.

La., New Orleans.—Waguespack Oil & Land Co., recently reported incorporated with \$60,000 capital stock, owns and will develop 80 acres of land in oil field of Caddo parish; Raymond Waguespack, president.

La., Robeline.—Missouri-Louisiana Oil Co. incorporated with \$250,000 capital stock; proposes to drill for oil on 12,000 acres in Natchitoches and Sabine parishes; N. V. Bray, president, Springfield, Mo.; N. M. Hyde, first vice-president, Winnfield, La.; J. J. Hutson, second vice-president, Longview, Tex.; Oscar Shanks, secretary-treasurer, Alexandria, La. (Recently mentioned.)

Okla., Ardmore.—Carter County Oil & Gas Co. has 120 acres of oil lease 20 miles from Ardmore; will drill initial well; has drilling machinery. (Recently reported incorporated.)

Okla., Bartlesville.—Brokers' Oil Co. incorporated with \$10,000 capital stock by A. H. Huling, Jesse O. Miller and Clyde W. Huling.

Okla., Heavener.—Heavener Oil & Gas Co. incorporated with \$10,000 capital stock by J. A. Murdock, J. M. Brewer, Oliver Layne and S. R. Wilson.

Okla., Shawnee.—Morgan Oil & Gas Co. incorporated with \$25,000 capital stock by C. E. Eastwood and M. I. McKenzie, both of Shawnee, and M. F. Merrill, Asher, Okla.

Okla., Tulsa.—Paris Oil & Gas Co. incorporated with \$15,000 capital stock by W. C. Jernigan, Charles N. Simon and C. S. Walker.

Okla., Tulsa.—Clover Oil & Gas Co. incorporated with \$12,000 capital stock by J. M. Clover, H. F. Rethman, D. M. Ransbottom and G. R. Clover.

Tex., Beaumont.—Triangle Oil Co. incorporated with \$10,000 capital stock by L. Sneed, J. S. Wheelless and L. E. Blankenstein.

Tex., Crowther.—Boston-Texas Corporation, S. A. Hopkins, president, Boston, Mass., will develop oil property; is drilling wells.

Tex., Fort Worth.—Fort Worth-Putnam Oil Co. incorporated with \$14,000 capital stock by D. B. Keeler, C. D. Reimers, George Lettler and Ben O. Smith.

Tex., Houston.—Gulf Pipe Line Co. (main offices Pittsburg, Pa.) applied for franchise to construct pipe line system to distribute fuel oil to manufacturing plants, etc.

W. Va., Charleston.—Betty Oil Co. incorporated with \$100,000 capital stock by G. O. Chilton, S. B. Chilton, J. E. Chilton, J. B. Kenna and A. G. Wanorek.

W. Va., Parkersburg.—County Oil & Gas Co. incorporated with \$10,000 capital stock by C. A. Mead, J. J. Shore, J. M. Senseman, C. Van Devender and others.

ICE AND COLD-STORAGE PLANTS

Fla., Port St. Lucie (not a postoffice).—J. H. Rogers, Sewall's Point, Fla., states company will promote recently-noted plant; has not perfected plans or called for bids.

Fla., Pensacola.—Swift & Co., Chicago, Ill., awarded contract to Macdonald Engineering Co., Monadnock Bldg., Chicago, for erection of two-story brick building recently noted; cold-storage plant and smokehouse equipment to be installed; fireproof structure; cost \$40,000; completed by August 31.

Fla., Tampa.—G. W. Judy & Co. purchased property 110x272 feet on which to erect produce-house, including 12 to 16-car-capacity cold-storage plant; building will be of steel and concrete; cost about \$25,000.

Tex., Canadian.—Faulkner & Harris, Hutchinson, Kans., awarded contract to Henry Vogt Machine Co., Louisville, Ky., to erect 15-ton ice plant. (Lately noted.)

W. Va., Bluefield.—Armour & Co., Chicago, Ill., will, it is reported, establish ice and cold-storage plant.

IRON AND STEEL PLANTS

Tex., Houston.—Rolling Mill, etc.—United States Iron & Steel Co. is proceeding with

construction of plant previously described; re-rolling rail mill; first mill, nearing completion, consists of 80x200-foot main building, 25x120-foot lean-to and a 35x65-foot boiler-house; machinery mainly purchased; main building to contain four train rolls, three high, operated by 850-horse-power engine, with two reheating furnaces; fuel oil; equipment being installed in finishing department; 25-ton open-hearth furnace to be constructed soon; operation contemplated for October 15; capacity 160 tons per day of 24 hours; I. N. Willard, Utica, N. Y., president; J. William Barnes, Pittsburg, Pa., first vice-president and general manager; second vice-president, N. L. Mills, Houston, Tex.; secretary-treasurer, J. B. Hine, Syracuse, N. Y. Company acquired brown hematite iron-ore lands in Cherokee county; contemplates mining and establishment of smelter on 20-acre tract at San Jacinto.

LAND DEVELOPMENTS

Ark., Pine Bluff.—Thomas A. Bell, St. Louis, Mo.; A. W. Wiest, Indianapolis, Ind., and J. Ferguson, Fayetteville, Ark., purchased 19,200 acres near Pine Bluff for truck farming colonization.

Fla., Manatee.—Albert F. Rodewalt, H. Ramlow and Dr. O. von Hentig of Berlin, Germany, and others have purchased, through C. S. Elliott of Tampa, about 75,000 acres of pine, hammock, muck and swamp lands in Manatee and Hillsborough counties; purchase price, \$900,000; propose to develop turpentine and lumber interests and locate German colony of farmers. Mr. Elliott wires the Manufacturers Record in part as follows: "Majority of land is round timber; plan turpentine and lumber operations; colonize open land and other as available; located on Seaboard Air Line Railway and Tampa Bay; \$250,000 cost of survey, roads and buildings; also probability of direct steamer service between Tampa and Hamburg." Samuel Borchardt of Tampa, Fla., is attorney for buyers.

Ga., Baconton.—Jackson Pecan Groves Co. incorporated with \$50,000 capital stock by W. T. Jackson, R. P. Jackson and T. S. Jackson; groves and office at Baconton. (Recently incorrectly noted at Camilla, Ga.)

Ga., Thomasville.—L. S. Cobb of Wilcox county purchased from Flowers-Parker Realty Co. of Thomasville 800 acres of farming land in Thomas county; purchase price about \$20,000; will construct roads and subdivide into small farms.

La., Crowley.—Louisiana Realty & Development Co. organized with \$100,000 capital stock; H. M. Bone, president; P. J. Chapuis, vice-president; L. A. Williams, secretary-treasurer.

La., New Orleans.—George C. Friederichs purchased City Park racetrack property, comprising 110 acres, and will develop as residential section; purchase price \$263,275.

Miss., Hattiesburg.—Park Commission contemplates expending \$3500 for improving Kemper Park. Address The Mayor.

N. C., Charlotte.—E. D. Latta, Jr., will develop suburb; plans proposed include cement sidewalks, streets of bitulthic or some other material, water, gas and sewerage mains along each street, etc.; Mr. Latta is conferring with Olmsted Bros., landscape architects, Boston, Mass.

N. C., Victoria.—J. S. Fowler and T. B. Earle, Anderson, S. C., and others secured options on 2000 acres of land and will develop summer resort; construct lake covering 400 acres, erect hotel, etc. (See "Hotels.")

Okla., Hammon.—Hammon Townsite Co. incorporated with \$16,000 capital stock by J. N. Cook, W. E. Hecker and A. L. Thurmond, all of Elk City, Okla.

S. C., Charleston.—Rose Hill Plantation, incorporated with \$12,000 capital stock; purchased Rose Hill plantation in Colleton county; D. C. Heyward, president; William Jaycock, vice-president; S. A. Marvin, secretary-treasurer. (Lately reported under S. C., White Hall, as Rose Hill Planting Co.)

Tex., Beaumont.—City will vote on issuance of \$60,000 park bonds. Address The Mayor.

Tex., Houston.—John C. Penn of Penn & Fruchling purchased for \$100,000 about 100 acres of land extending from Bellaire Blvd. to Bray's Bayou; will subdivide and develop as suburban residential section.

Va., Charlottesville.—Pantops Orchard Co. incorporated with Samuel B. Woods, president; Edwin A. Alderman (president University of Virginia), vice-president; W. A. Lambeth, treasurer; J. L. Newcomb, secretary; purchased 480 acres of Pantops estate and will develop for fruit cultivation; during

coming season proposes to plant about 1800 trees and construct driveways.

Va., Lynchburg.—Highland Park Company Incorporated to develop suburb; president, W. H. Ford; vice-president, J. R. Ford; treasurer, R. C. Blackford; secretary and manager, R. J. Hughes.

Va., Norfolk.—South Atlantic Realty Corporation Incorporated with \$50,000 capital stock; V. H. Campbell, president and treasurer; James H. Winston, vice-president; T. F. Hardy, secretary.

Va., Staunton.—Virginia Valley Orchards Co. Incorporated with \$50,000 capital stock; T. S. Gruss, president, Edgewood Park, postoffice at Swissvale, Pa.; Thomas J. McCall, vice-president, Jeannette, Pa.; W. J. McCance, secretary-treasurer, Edgewood Park, postoffice at Swissvale, Pa.

LUMBER MANUFACTURING

Ark., Brinkley.—Robe Lake Lumber Co. will be incorporated with \$100,000 capital stock to succeed Irby Bennet & Co.; acquires 12,000 acres hardwood timber land in vicinity of Robe Lake, near Brinkley; M. A. St. Johns, president; Irby Bennet, vice-president; Charles B. Dudley, treasurer, and Leroy Alcot, secretary, all of Memphis, Tenn.

Ark., Elliott.—Telford Lumber Co. Incorporated with \$10,000 capital stock by D. Telford, W. F. Walls and D. B. Roby.

Arkansas.—Osage Timber Land Co. chartered with \$50,000 capital stock by James S. Lakin, T. C. Townsend, J. S. Hill and others of Charleston, W. Va.; purchased and will develop 25,000 acres of land in Ozark mountains.

Ark., Homan.—Flora (Ind.) capitalists purchased Homan Lumber Co.'s sawmill, 3200 acres timber land and 10 miles of railroad; purchase price reported as \$100,000; stated that new owners will enlarge mill and increase capacity.

Fla., Manatee.—C. S. Elliott of Tampa, Fla., representing capitalists of Germany, purchased 75,000 acres of pine, hammock, muck and swamp lands in Manatee and Hillsboro counties; propose to develop turpentine and lumber properties. (See "Land Developments.")

Fla., Jacksonville.—Docher-Gardner Lumber Co. will rebuild planing mill recently reported burned; building to be frame, 28x250 feet; boiler-house to be brick, 28x30 feet.

Ky., Hazard.—Ford Lumber Co. leased, it is reported, timber land near mouth of Mason Creek; will erect sawmill.

Ky., Letcher County.—Swift Coal & Timber Co. purchased 1000 acres timber and coal land for development.

Ky., Louisville.—Consumers' Lumber Co. Incorporated with \$10,000 capital stock by Henry J. Tilford of Louisville, J. A. Hill and A. W. Hill, both of St. Louis, Mo.

Ky., Oremine (not a postoffice).—Rose Run Iron Co., Olympia, Ky., will erect sawmill; owns 900 acres of timber; Clyde Young, general manager.

Ky., Perry County.—Eastern syndicate, represented by J. H. French of New York, purchased 3000 acres timber and coal land for development.

La., Franklinton.—McCrary Lumber Co. purchased sawmill operated by River Lumber Co. as lessee; contemplates remodeling plant, increasing capacity to 50,000 feet daily and adding planing mill.

La., Richland Parish.—Boeuf River Land & Lumber Co. Incorporated with \$100,000 capital stock by James L. Hale, H. R. Boyd, C. H. Trimble, H. M. Raborg and C. Falkenberg; controls land in Richland Parish; will establish sawmill, lumber and logging facilities.

La., Ville Platte.—Bowman-Hicks Lumber Co. recently reported to establish saw-mill and develop land for farming after timber is cut, has general offices at Kansas City, Mo.

La., Walker.—McKenzie Lumber Co. of Adrian, Miss., Incorporated with \$1,000,000 capital stock; erect sawmill at Walker.

N. C., Oxford.—W. D. Kimball will rebuild saw-mill recently reported burned at loss of \$40,000.

Tenn., Chattanooga.—Bruce Baxter and associates purchased King-Baxter Lumber Co. and will improve plant at Orange Grove; new company organized with Bruce Baxter president and treasurer, W. C. King secretary, both of Chattanooga; W. M. Davidson of St. Joseph, La., vice-president.

Tenn., Nashville.—Southern Lumber & Manufacturing Co., J. R. McInwaine, president, will rebuild lumber plant recently reported burned at loss of about \$75,000.

Tex., Hemphill.—W. H. Knox, Livingston,

Tex., contemplates erection of lumber plant.

Tex., Houston.—Long-Bell Lumber Co. of Kansas City has purchased property for which it was recently reported as negotiating; purchase includes 150,000 acres timber land, and Doucette, Trinity and New Willard mills with capacity of 100,000,000 feet lumber.

Tex., Kerens.—Walker Lumber Co. Incorporated with \$10,000 capital stock by Incorporators T. S. Daniel, J. C. Walker and W. H. Finley.

Tex., Sulphur (not a postoffice).—Dee Fleniken, Paris, Tex., will erect sawmill.

W. Va., Elkhurst.—Standard Lumber & Manufacturing Co. Incorporated with \$50,000 capital stock by W. D. Payn and M. Minor, Jr., Charleston, W. Va.; D. L. Arnold, Janelew, W. Va., and others.

W. Va., Randolph County.—Elkins Pail & Lumber Co., Elkins, W. Va., purchased 800 acres timber in Randolph county for \$18,000.

METAL-WORKING PLANTS

Ky., Louisville.—Brass.—Art Brass and Plating Works Incorporated with \$10,000 capital stock by Louis Rindt, W. L. Heady and others to plate brass, etc.

Tex., Houston.—Brass.—Southern Brass Manufacturing & Plating Co. Increased capital stock from \$12,000 to \$24,000.

MINING

Ark., Rogers.—Gold.—W. H. Kruse, Minneapolis, Minn., and associates will, it is reported, reopen gold mines near Rogers; erect smelter; construction begun.

Ga., Lithonia.—Granite.—American Granite Co. consolidates Lithonia Crushed Stone Co. and Georgia Rough & Cut Stone Co.; properties include 73 acres land near Lithonia, with 12 developed quarries; 10 acres near Sparta, Ga., with two developed quarries; president and general manager, Charles F. McKenzie of Augusta, Ga., where company's general offices are located. (Recently reported, under Augusta, as Incorporated with \$600,000 capital stock, Creek.)

Ky., Warren.—Brush Creek Mining & Manufacturing Co. purchased machinery for development of 750 acres; estimated daily output, 1000 tons; president, T. E. G. Siler, Charleston, W. Va.; vice-president, L. M. Soth; secretary-treasurer, W. B. Siler; manager, R. L. Wheeler. (Previously noted under Barbourville, Ky.)

Mo., Noel-Gravel and Sand.—Noel Gravel & Sand Co., 504 Victor Bldg., Kansas City, Mo., will develop 22 acres; daily capacity 20 cars; machinery partially purchased; W. F. Hammond, president; Chas. Werner, vice-president; E. B. Ludwig, secretary-treasurer; C. G. Martin, manager. (Recently noted under Kansas City.)

Okla., Davis.—Lead and Zinc.—United Mining & Milling Co., Coffeyville, Kans., will develop 500 acres of lead and zinc deposits; daily capacity 15 tons of concentrated ore; C. C. Surber, president; M. M. Gross, vice-president; Myers Gross, secretary-treasurer. (Recently noted Incorporated with \$50,000 capital stock.)

Tex., Fort Worth.—Gravel.—Martin Gravel Co. Incorporated with \$12,000 capital stock by C. W. Martin, F. A. Johnston and Albert Dines.

MISCELLANEOUS CONSTRUCTION

Ala., Mobile.—Steamship Pier.—Mobile & Ohio Railroad will construct pier and warehouse; company's general manager, R. V. Taylor, wires Manufacturers Record brief details Mobile & Ohio Railroad as follows: "Adams St. pier will cost approximately \$150,000; will have three berths for ocean-going steamers of 440, 350 and 410 feet, respectively, in length, aggregating 1200 linear feet; will be constructed of creosoted material throughout, and slips adjacent dredged to a minimum depth of 23 feet below mean low tide; will have double-story warehouse with depressed tracks therein; 50,000 square feet floor area of either floor; to be of heavy framed mill construction; first floor of concrete; date of opening bids not definitely decided upon."

Mo., Cape Girardeau.—Seawall.—St. Louis & San Francisco Railroad, F. G. Jonah, chief engineer, St. Louis, Mo., awarded contract to Hawley & Durnell of Cape Girardeau to construct seawall along river front; improvement will include, in addition to wall, grading and paving levee and boat landings.

N. C., Waynesville.—Dam.—Southern Assembly, Rev. James Cannon, general superintendent, asks bids until noon July 24 on erection of previously-noted earth dam and appurtenances; specifications and plans at office of J. W. Seaver, Jr., chief engineer,

Waynesville; cost previously estimated at \$100,000. (See "Machinery Wanted.")

S. C., Charleston.—Steamship Terminals.—Clyde Steamship Co., H. H. Raymond, general manager, New York, is reported as planning construction of terminals occupying 1000 square feet; to include docks, warehouses, etc.

Tex., Galveston.—Channel.—Government awarded contract to Bowers Southern Dredging Co. of Galveston at 15 cents per cubic yard to enlarge and deepen channel from mouth of Brazos River two miles upstream; contract price on estimate of 291,000 cubic yards, about \$43,650; channel to be 18 feet deep at mean low tide, and 150-foot bottom width; existing channel 13 feet deep and 75 feet wide. Major George P. Howell, United States Engineer, in charge. (Recently mentioned.)

W. Va., Berwind-Tunnel.—Berwind Coal Co. awarded contract to C. W. Garland, Graham, Va., to construct tunnel or tube through which electric motor will operate.

MISCELLANEOUS ENTERPRISES

Ala., Albertville.—Steam Laundry.—J. T. Wellborn and J. H. Johnston are promoting establishment of steam laundry; machinery purchased.

Ark., Fort Smith.—Vehicles and Machinery. Rowe Vehicle & Machinery Co. Incorporated with \$10,000 capital stock by M. A. and Dora Rowe and J. V. and Blanche Hinckley.

Ark., Little Rock.—Grain Elevator.—Darrah Warehouse Co. will erect grain elevator; 40x40 feet; 85 feet high; capacity 25,000 bushels; Kaucher, Hodges & Co. of Little Rock and Memphis, Tenn., are contracting engineers; bids received until July 3. (See "Machinery Wanted.")

Ga., Atlanta.—Art Marble, etc.—Atlanta Art Marble Co. Incorporated with \$100,000 capital stock by Dave Wurtzburger, John B. Dickson, B. F. Lipscomb and others.

Ky., Jenkins.—Industrial City.—Consolidation Coal Co., A. T. Watson, purchasing agent, Fairmont, W. Va., and Continental Bldg., Baltimore, Md., awarded contract to Nichols Building Co., Farmers' Bank Bldg., Pittsburgh, Pa., to construct buildings for mining town; 1000 structures distributed over 15 miles; include dwellings, churches, schools, theaters, etc., at Jenkins; contractor will build saw and planing mills, brick works, limekiln, blacksmith shop, etc., to supply materials; contract includes constructing macadamized road several miles long, lake one mile wide, etc.; electric-light and water plants contemplated; Oliver P. Nicola, president of Nicola Building Co., is at Jenkins superintending preliminary work.

Ky., Louisville.—Printing Plant.—Louisville Herald will erect building to be equipped as newspaper plant; two stories and basement; brick; cost \$30,000.

La., Lake Charles.—Electric and Gas Fixtures.—Electric Construction Co. Incorporated with \$25,000 capital stock; J. Stuart Thomson, president; A. Brammer, vice-president; Frank V. Gallagher, secretary-treasurer.

Miss., Gulfport.—Coast Auto & Garage Co. chartered with \$10,000 capital stock by L. N. Dantzler, D. E. Morris, G. B. Dantzler and others.

Mo., Carthage.—Garage.—W. C. Bryant will let contract to local contractor to erect addition to storage garage; 40x60 feet; ordinary and fireproof construction; plans by owner; no machinery. (Recently noted.)

N. C., Lumberton.—Automobiles.—Lumberton Motor Car Co. Incorporated with \$25,000 capital stock.

N. C., Oxford.—Hardware.—Acme Hardware Co. Incorporated with \$50,000 capital stock by J. M. Baird, J. F. Holeman, J. S. Rogers and W. J. Clement.

N. C., Smithfield.—Garage.—Smithfield Garage & Machine Co., J. H. Kirkman, secretary-treasurer, will conduct automobile repairing in connection with machine shop, iron and brass foundry; shop at Smithfield; foundry at Selma, N. C. Recently noted. (See "Foundry and Machine Plants" under Selma, N. C.)

N. C., Winston-Salem.—Printing.—Winston Printing Co. Incorporated with \$100,000 capital stock by Charles Ellis, Frank Brumley and W. L. Harper.

Okla., Ada.—Rock-crushing Plant.—Oklahoma Portland Cement Co. contemplates erecting rock-crushing plant between Ada and Oklahoma City.

Okla., Oklahoma City.—Hardware.—Carr Hardware Co. Incorporated with \$10,000 capital stock by Carrie J. Dolsfeld, Owen T. Carr and Clarence Owens.

Tenn., Memphis.—Garage.—V. L. Rogers, Jr., will erect garage; 50x150 feet; exterior finished in terra-cotta; salesroom 60x47 feet, with plate-glass front and hardwood floor; estimated cost \$10,000; James J. Broadwell, Porter Bldg., is architect.

Tenn., Memphis.—Woodenware.—L. P. Canmann Woodenware Co., recently reported Incorporated (under "Woodworking Plants") with \$100,000 capital stock, will conduct jobbing woodenware business; considering erection of suitable building.

Tenn., Nashville.—Publishing.—Brooke Publishing Co., 150 Fourth Ave. (recently reported Incorporated with \$10,000 capital stock), will publish Nashville Daily; J. Lightfoot Brooke, president; no equipment needed.

Tex., Austin.—Construction.—Co-operative Construction Co. Incorporated with \$10,000 capital stock by W. R. Davie, Thomas F. Scott, S. R. Fuller and H. A. Cochran.

Tex., Dallas.—Engineering and Construction.—Trinity Engineering & Construction Co. Incorporated with \$75,000 capital stock by H. K. Payne, W. M. Waskom, Otto Herold and Harry L. Seay.

Tex., Beaumont.—Undertaking.—Broussard, Little & Co. will erect building for undertaking establishment; two stories; brick; second floor for residential purposes.

Tex., Beaumont.—Abattoir.—City will vote on issuance of \$25,000 of bonds for abattoir. Address The Mayor.

Tex., Fort Worth.—Grain Elevator.—Fort Worth Elevators Co., 303 Exchange Bldg. (recently noted to increase capital stock to \$150,000), does not contemplate further improvements in near future; lately completed 500,000-bushel fireproof grain elevator.

Tex., Mt. Pleasant.—Abattoir.—City will erect abattoir. Address The Mayor.

Tex., Waco.—Laundry.—D. P. Wallace and H. Hamblett will establish laundry; building to be erected; machinery purchased; total cost \$50,000.

Va., Richmond.—Books.—Virginia Book Co. Incorporated with \$50,000 capital stock; Victor R. Smith, president, Atlanta, Ga.; Burgess Smith, vice-president, Atlanta, Ga.; R. O. Bell, secretary-treasurer, Richmond.

W. Va., Nemours.—Rock Crushing.—Edwin Mann, L. A. Hooper, J. H. Hardy and C. L. Borden, all of Bluefield, W. Va., purchased Baker rock crusher plant; will handle limestone by gravity system; reported to install new machinery and increase output from 130 to 300 yards daily.

MISCELLANEOUS FACTORIES

Ala., Birmingham.—Beverage.—Deacon Brown Bottling Co. Incorporated with \$2500 capital stock; installed equipment at 1625 First Ave.; Louis Meharg, president; A. Tedeski, vice-president; G. M. Wray, secretary-treasurer; Julius Marx, manager.

Ala., Huntsville.—Paper.—Tracey W. Pratt is reported as closing negotiations whereby paper mill costing \$400,000 will be erected.

Ala., Mobile.—Compressed Gas.—Pintech Compressing Co. of New York will construct two-inch iron pipe line on various streets.

Ark., Rogers.—Leather Gloves.—A. E. Zander & Co. Incorporated with \$25,000 capital stock by E. A., E. C. and O. A. Zander and J. M. McClelland.

Fla., Pensacola.—Mattresses.—R. M. Addison, Montgomery, Ala., will establish mattress factory.

Ga., Cedartown.—Trucks and Tires.—Noiseless Wheel & Truck Co., recently reported to be Incorporated with \$100,000 capital stock, purchased Cedartown Iron Co.'s plant, including machine shops, foundry and wood-working plant; will operate for manufacture of patented truck and noiseless cotton wheel; C. B. Morris, Philadelphia, Pa. (owner of wheel patents), is preparing plans for additional building; Charles Adamson, 119 S. 4th St., Philadelphia, Pa., is also interested.

Ga., Rome.—Sweeping Compounds.—The Kil-dust Company Incorporated with \$2000 capital stock and privilege of increasing to \$50,000 by Harry O. Ritz, E. R. Pennybaker, Jr., W. H. Ennis and Sproul Fouché.

Ky., Louisville.—Distillery.—Pleasure Ridge Park Distillery (recently reported Incorporated with \$75,000 capital stock by H. B. Smith and others) purchased Pleasure Ridge Park Distillery, 14 miles from Louisville; includes distillery with daily mash capacity of 500 bushels and warehouse with capacity for 10,000 barrels whiskey.

Ky., Owensboro.—Air Grate.—Barber Air Grate & Manufacturing Co. Incorporated with \$25,000 capital stock by T. M. Barbee, R. B. Thompson, M. Gano Buckman and others.

La., Baton Rouge.—Catherine Planting &

Manufacturing Co. will enlarge present six-roll sugar mill at Catherine Plantation to 12 roll mill; will be capable of handling 30,000 tons of cane next season; Edm. Voorhies, engineer, will be in charge.

La., Lake Charles.—Polish.—Quickwork Polish Co. incorporated with \$250,000 capital stock; M. F. Kettler, president; M. L. Wormack, Jr., first vice-president; Frank E. Powell, second vice-president; W. T. Kalm-lach, secretary; G. C. Gaines, treasurer.

La., Loreauville.—Sugar.—Adrien Consoulin will rebuild Maria Central Sugar factory, previously reported burned; steel and brick construction; buildings to cost \$25,000; machinery purchased; construction begun.

La., New Roads.—Syrup.—Raphael Provosty and Frank H. Smith will erect syrup factory on Fon de Lac Plantation, in Pointe Coupee parish; construction begun.

La., New Orleans.—Beverages.—Cuba Fruit Juice Co. incorporated with \$5000 capital stock by A. Philbrick, J. H. Gregory and R. McClellan.

Md., Baltimore.—Shirts, etc.—Barrett-McKee Company, Greene and German Sts., changed name to Majestic Shirt Co. and increased capital stock from \$100,000 to \$175,000.

Md., Baltimore.—Bakery.—Chesapeake Baking Co. awarded contract to B. W. & E. Minor, 224 W. Pratt St., Baltimore, for addition to bakery; one story; 29x96 feet; brick; slag roof; plans by B. W. Minor.

Md., Baltimore.—Glassware.—Canton Manufacturing Co., 102 Park Ave., leased five-story warehouse at 226-228 Pleasant St. and will equip as annex factory for decorated glassware.

Md., Baltimore.—Hydrocarbon Compounds. Protecto Hydrocarbon Co., A. B. Frenzel, engineer, Denver, Col., contemplates locating plant.

Md., Baltimore.—Candy.—Union Candy Co. incorporated with \$30,000 capital stock by William W. Thomson, 3408 Mondawmin Ave.; George Brasura, A. Watson Byrd and J. Walter Jackson; secured warehouse at 130 W. Pratt St., and will equip as candy factory.

Mo., St. Louis.—Steel-spring Tire.—Gregory De Hart Cushion Steel Spring Tire Co. incorporated with \$250,000 capital stock; leased site on Locust St., near Jefferson Ave., and will erect plant to manufacture patented tire; office 3127 Locust St. (Lately noted.)

Mo., St. Louis.—Wire Glass.—Mississippi Glass Co. will erect three one-story buildings, 84x105 feet, 77x105 feet and 60x194 feet, respectively; steel frame construction; plans by Brenneke & Fay; contract awarded to Murphy Construction Co.; both of St. Louis.

Mo., St. Louis.—Benjamin Franklin Realty Co. will erect loft and store building. (See "Stores.")

Mo., St. Louis.—Brewery.—Anheuser-Busch Brewing Association will remodel malthouse at cost of \$28,471.

Mo., St. Louis.—Clothing.—Cleveland Woolen Mills Co., George Shine, manager, Cleveland, Tenn., leased space in building at 11th St. and Washington Ave.; will equip for manufacturing men's clothing.

Mo., St. Louis.—Churns, etc.—Dazey Churn & Manufacturing Co. awarded contract to Otto Kabatzky to construct plant for manufacturing metal and glass churns and glass ice-cream freezers; 47x140 feet; two stories; mill construction; cost \$9000; N. P. Dazey, 4333 Warne Ave., president. (Lately noted under "Woodworking Plants.")

Mo., St. Louis.—Distillery.—Jack Daniel Distilling Co. will rebuild distillery recently reported burned; Walter L. Dearman, manager.

N. C., Wilmington.—Dates, Stamps, etc.—Post Date Stamp Co. incorporated with \$50,000 capital stock by Thomas R. Post, James F. Post and D. C. Love to manufacture dates, stamps, dies, etc., of metal, rubber, etc.

Okla., Blackwell.—Yeast.—Mothers' Yeast Co. incorporated with \$4000 capital stock by J. W. Decamp, C. C. Fyffe and H. S. Curley.

Okla., Krebs.—Pipe Wrench, etc.—International Tool Co., Los Angeles, Cal., will establish plant to manufacture wrench and chain tong. M. Morgan is president; offices in Cornish Bldg., 200½ E. Choctaw Ave.

Okla., Oklahoma City.—Chemicals.—Hubb's Chemical Co. incorporated with \$15,000 capital stock by J. M. Kitt, J. W. Sanders and P. M. Pope.

Okla., Oklahoma City.—Medicine.—Sin-A-Lax Medicine Co. incorporated with \$1,000,000 capital stock; plant located at 325 W. California Ave.; E. J. Dupree, president; J. M. Phillips, vice-president; J. M. Poostelle, secretary.

Okla., Okmulgee.—Glass.—Baker Bros. Glass Co., Caney, Kans., is considering. It is reported, establishment of glass factory.

Okla., Oklahoma City.—Loading Trucks.—

Chestnut Loading Truck Co., J. L. Sadler, president, will establish plant to manufacture loading trucks.

Okla., Poteau.—Glass.—Poteau Glass & Manufacturing Co. incorporated with \$100,000 capital stock by W. C. Beesley and T. B. Wall of Poteau, W. C. Shaw, George Ray and Joseph Faux, Coffeyville, Kans.

Okla., Tulsa.—Gasoline.—Oklahoma Gasoline Manufacturing Co. incorporated with \$25,000 capital stock by E. J. McJunkin, R. E. Downing, F. A. Gillisple and O. M. Lancaster.

Okla., Wapanucka.—Lime.—Wapanucka Lime Co. incorporated with \$7000 capital stock by Robert E. Wade, Claire E. Richards and William L. Richards.

S. C., Charleston.—Cigars.—Metropolitan Cigar Co. incorporated with \$2500 capital stock by H. G. Follia, H. W. Bura and N. D. Sassard.

S. C., Spartanburg.—Coffee.—J. B. Crews Coffee Co. incorporated with \$7500 capital stock; J. B. Crews, president, secretary and treasurer.

Tenn., Coal Creek.—Overalls.—J. T. Raines, Whiteville, Tenn., is considering establishment of overall factory.

Tenn., Trenton.—Medicines.—McCullough Medicine Co. incorporated with \$50,000 capital stock by R. R. Collins, B. L. McCullough, K. C. Jones and others.

Tenn., Knoxville.—Machine Tools.—Knoxville Machine Tool Co. incorporated with \$25,000 capital stock by John P. Staub, John W. Cruze, Solon S. Klipp and others.

Tex., Corpus Christi.—Gas.—City Council granted gas franchise to Joseph Hirsch, Royall Givens, M. T. Gaffney, Jacob Smith and others.

Tex., Dallas.—Oak Cliff Paper Mills will repair plant recently damaged by fire at loss of \$5000 to \$6000.

Tex., Dallas.—Macaroni.—Dallas Macaroni & Paste Manufacturing Co. incorporated with \$15,000 capital stock by M. H. Mahana, H. T. Jordan and G. W. Blakeney.

Tex., Harrisburg.—Boats.—Bennett Construction Co., 10th and Howard Sts., Houston Heights, Tex., has elected W. E. Bennett president and treasurer; J. R. Glascock, secretary; will build and repair boats; building erected. (Recently noted incorporated.)

Tex., San Marcos.—Storage Batteries.—Excelsior Storage Battery Co. incorporated with \$10,000 capital stock by A. B. Rogers, A. E. Lawrence and P. A. Hoffelmeier.

Tex., Texarkana.—Glass.—Texas Glass Co. is considering remodeling and enlargement of plant.

Tex., Temple.—Gas.—Temple Gas Co. incorporated with \$150,000 capital stock by William T. Utley, Henry M. Wallace, Raymond G. St. John, all of Detroit, Mich., and others; will erect water-gas plant; Detroit office 705 Union Trust Bldg. (Recently mentioned.)

Va., Danville.—Paper Boxes.—Lynchburg Paper Box Co., 12th and Harrison Sts., Lynchburg, Va., will establish branch plant; begun installation of machinery.

Va., Newport News.—Shipbuilding Plant.—Newport News Shipbuilding & Dry Dock Co., No. 1 Broadway, New York, will make improvements to dock No. 1; work, by company's force, is in progress.

Va., South Boston.—Creamery.—Halifax Creamery incorporated with \$15,000 capital stock; Rufus Owen, president; H. J. Daniel, vice-president; L. B. Good, secretary-treasurer.

W. Va., Glenova, P. O. Wheeling.—Tumblers.—Wheeling Tumbler Co., G. O. Smith, president, Wheeling, W. Va., has plans by H. W. Turner for erection of factory with daily capacity of 1000 dozen tumblers; 50x400 feet; fireproof; cost of machinery \$9000; will open bids for construction July 1 and machinery proposals August 15; address O. G. Beens, secretary, Wheeling; lately noted. (See "Machinery Wanted.")

W. Va., Grafton.—Chemicals.—Solar Chemical Co. (care Grafton Board of Trade) contemplates establishing plant.

RAILWAY SHOPS, TERMINALS, ROUNDHOUSES, ETC.

W. Va., New Martinsville.—Baltimore & Ohio Railroad, F. L. Stuart, chief engineer, Baltimore, Md., is reported as to construct roundhouse and yards.

ROAD AND STREET WORK

Ala., Anniston.—Calhoun County Road and Revenue Commissioners are considering \$300,000 bond issue for road construction. Address County Commissioners.

Ala., Dadeville.—Tallapoosa County Commissioners will construct State highway;

proposed that road be built from Dadeville to Horseshoe Bend, and there connect with second portion of road to be built from Alexander City to Horseshoe Bend; entire road from Dadeville to Alexander City will be about 25 miles long.

Ala., Talladega.—City will pave city square; R. W. McCalla is engineer in charge.

Ala., Troy.—City awarded contract to C. B. Holt Contracting Co., Birmingham, Ala., to pave sidewalks at 10 cents per square foot; distance about five miles.

Ark., Jonesboro.—City will pave South Main St. from Jackson St. to Nettleton Ave., about one mile; bids invited. Address The Mayor.

Ark., Jonesboro.—Craighead county will construct road from Bono, Ark., to Greene county line. County Judge Heywood and Surveyor Ben Eddins are making surveys.

D. C., Washington.—Commissioners District of Columbia will receive bids until 2 P. M. July 7 for laying cement sidewalks in District of Columbia. (See "Machinery Wanted.")

D. C., Washington.—Vernon W. Peirce, acting director of good roads division of Department of Agriculture, states preliminary arrangements for constructing roadway from Chevy Chase Circle to Bradley La., Maryland, have been accomplished; method of construction and materials not yet determined; construction probably by day labor. (Lately noted.)

Fla., Cortez.—City of Cortez and vicinity petitioned Manatee County Commissioners, Bradenton, Fla., to organize district for construction of roads and bridge across north end of Sarasota Bay, connecting Cortez with Anna Maria Key; length of structure about five and a half miles; may vote on bond issue in August.

Fla., Jacksonville.—Board of Public Works awarded contract to Georgia Engineering Co., Augusta, Ga., to pave Riverside Ave. from King to McRuff St. with vitrified brick at \$14.50; Engineering & Paving Co., Jacksonville, Fla., 3d, Hubbard and Newman Sts., vitrified brick, total about \$26,000; George R. Foster, Jr., of Jacksonville, Riverside Ave. with asphalt at about \$70,000.

Fla., Key West.—City will pave streets; bonds issued. Address The Mayor.

Fla., St. Petersburg.—City will grade and pave 3d St. south from Fifth to Sixth Ave.; width 30 feet; vitrified brick laid flat; granite curbing; also 1st St. south from Fifth to Sixth Ave.; width 20 feet; vitrified brick laid flat; bids received until July 6; W. F. Divine, City Clerk. (See "Machinery Wanted.")

Fla., Tampa.—Seminole Development Co. awarded contract to Edwards Construction Co. of Tampa to construct about one mile of shell paving in Seminole Heights.

Ga., Oglethorpe.—Macon county will vote July 20 on \$150,000 bond issue for road construction. Address County Commissioners.

Ga., Waycross.—City will pave sidewalks, expending \$50,000; width, 8 feet; bids invited; proposed to pave not less than 30 miles of sidewalk this year. Address The Mayor.

Ky., Lexington.—City will pave Lexington Ave. from Maxwell to Adams St. with macadam and macadam with asphalt binder; bids received until July 30; John Skaln, Mayor. (See "Machinery Wanted.")

La., Kenner.—Jefferson parish will construct five and one-half miles public highway; to constitute part of proposed highway from New Orleans to Baton Rouge; convict labor; plans for (recently noted) road from Metairie Ridge to Kenner not determined; Gervais Lombard, Acting State Highway Engineer.

La., New Iberia.—State will construct road from New Iberia to Jeanerette; bids received until July 10 at office of Highway Department, Board of State Engineers, Room 104 New Orleans Court Bldg., New Orleans, La.; Gervais Lombard, acting State Highway Engineer. (See "Machinery Wanted.")

La., New Orleans.—State Highway Commission awarded contract at \$28,028 for constructing Mansfield-Logansport road to Geo. Epple of Shreveport, La.

La., New Orleans.—State Highway Commission rejected bids for constructing gravel road connecting North St. with Bayou Sara Rd.; will again invite proposals.

Md., Baltimore.—City Council is considering additional \$7,000,000 loan for street paving; B. T. Fendall, City Engineer, City Hall.

Md., Brooklyn.—Anne Arundel county will grade and surface with macadam Patapsco Ave. in Brooklyn from 1st St. to Pennington Ave., one mile; bids received until July 5; E. T. Hayman, Road Engineer, Annapolis, Md. (See "Machinery Wanted.")

Miss., Aberdeen.—First Supervisors' District of Monroe county will vote July 7 on \$100,000 bond issue for road construction. Address County Commissioners.

Miss., Bay St. Louis.—City contemplates \$50,000 bond issue for street improvements and erection of school. Address The Mayor.

Miss., Collins.—Beat 3, Covington county, will award contract July 3 for construction of 25 additional miles of road; R. E. Snowden, Snowden, N. C., is engineer. (Contract for 18-mile section recently reported awarded.)

Mo., Belton.—City will construct about two miles rock or macadamized paving; engineer not engaged. Address The Mayor. (Bond issue for \$10,000 recently noted voted.)

Mo., Joplin.—City Council instructed City Engineer to prepare plans, specifications and estimates of cost of paving Main St. from 3d to 10th St. with vitrified brick in addition to wood paving; bids on both materials are to be invited. (Recently mentioned.)

Mo., Webb City.—Paving on East Daugherty St. is progressing; contract previously awarded; N. V. K. Spencer, Mayor. (Recently incorrectly noted as "Joplin, Mo.")

N. C., Lumberton.—City will construct paving to cost about \$15,000; bitulithic, brick or asphalt; concrete foundation; Gilbert C. White, consulting engineer, Durham, N. C. (See "Machinery Wanted.")

N. C., Statesville.—City contemplates improving streets and sidewalks; will grade and pave about one-half mile of sidewalks on Center St.; R. L. Greenlee, engineer, Marion, Ark., engaged to make surveys and profiles.

Okla., Oklahoma City.—Park Commissioners awarded contract to Matt Cunyan at \$1200 to grade one and a half miles of proposed boulevard to extend around city.

Okla., Pawhuska.—City is proceeding with delayed street work; 22 blocks initial unit; contract recently awarded to Shelby-Downard Asphalt Paving Co. of Ardmore, Okla.

Tenn., Brownsville.—R. N. Bond is chairman of committee appointed to receive bids for street improvements. (City lately noted as having voted \$40,000 bond issue.)

Tenn., Chattanooga.—City awarded contract to Southern Paving & Construction Co. of Chattanooga at \$67,988.73 to pave 32,000 square yards on Main St. with 14-foot vitrified brick, center, flanked on each side by 11-foot strip of California asphalt; four-inch concrete base; E. E. Betts, consulting engineer.

Tenn., Memphis.—City awarded contract to R. C. Huxton to pave Union Ave. from Main to Wellington St. with creosoted wood blocks; cost \$17,267.

Tenn., Nashville.—City awarded contract to Sam Rogers & Son to construct sidewalk and curbing on portion of Pearl, Cheatham and Buchanan Sts. and Eleventh and Arthur Aves.; contract price 11½ cents for sidewalks and 30 cents for curbing.

Tex., Aransas Pass.—City awarded contracts for construction of about one mile of concrete sidewalks, 14 feet wide, on Commercial St. Address The Mayor.

Tex., Beaumont.—City will vote on issuance of \$25,000 paving bonds. Address The Mayor.

Tex., Centerville.—District, including Centerville, Robbins and Concord, will vote July 1 on \$15,000 bond issue for road construction. Address County Commissioners.

Tex., Galveston.—Galveston County Commissioners awarded contract to J. C. Kelso of Galveston at \$28,491 to construct road from Texas City Junction along railroad to causeway approach at Virginia Point, and from Highland Bayou along Gulf, Colorado & Santa Fe Railway to causeway approach; total about five miles; for both roads will be about 12,800 yards of embankment and 14,800 feet B. M. creosoted timber and pine for small bridges and culverts; excavation, about 200 yards dirt; surfacing material, mudshell, of which will be used about 13,000 cubic yards; G. E. Mann, County Judge. (Call for bids lately noted.)

Tex., Groveton.—Trinity county voted bond issue for road construction. Address County Commissioners.

Tex., Lockhart.—Road Precinct No. 4 of Caldwell County awarded contract to Van Flowers of Lockhart to construct six miles of macadam roads between Luling and Prairie Lea. (Bond issue of \$25,000 recently reported voted.)

Tex., Marlin.—City awarded contract to Ray McDonald to pave business portion of Live Oak St.; 5000 square yards; granitoid paving. (Recently mentioned.)

Tex., Palestine.—Precinct No. 1 of Anderson county voted \$150,000 bond issue for road construction. Address County Commissioners.

Tex., Wichita Falls.—City will vote July 22 on issuance of \$32,500 street improvement bonds. Address The Mayor.

Va., Alexandria.—City Council authorized \$50,000 bond issue for street improvement. Address The Mayor.

Va., Christiansburg.—Montgomery county will construct one mile of macadam road between Christiansburg and Auburn; bids received until July 6; P. St. J. Wilson, State Highway Commissioner, Richmond, Va. (See "Machinery Wanted.")

Va., Norfolk.—Board of Control awarded contract to F. J. McGuire of Norfolk to construct boulevard through Villa Heights from Church St. to bridge across Lafayette River; asphalt macadam and concrete; contract price, \$1.25 per yard for roadway and 47 cents per foot for curbing; \$8645 appropriated; W. T. Brooke, City Engineer.

Va., Norfolk.—Board of Control awarded contract to F. J. McGuire of Norfolk to pave 26th St. with concrete and curb with concrete at \$1.25 per square yard for roadway and 47 cents per foot for curbing; also to pave Leo and 27th Sts. with asphalt macadam at \$1.25 per square yard; W. T. Brooke, City Engineer. (Recently mentioned.)

W. Va., Lewisburg.—City will vote June 30 on \$16,000 bond issue for street improvements; Robert M. Bell, Mayor.

W. Va., Roncoveite.—City has engaged Leete & Maupin Engineering Co., Huntington, W. Va., to prepare plans for street paving and sewer extension. (Recently noted to have voted \$16,000 bond issue for extension to sewer and water-works and street paving.)

SEWER CONSTRUCTION

Ala., Hartsell.—City will issue \$28,000 bonds for sewers, water-works and electric-light plant; plans completed; bids to be asked when bonds are sold; Xavier A. Kramer, engineer, Magnolia, Miss.

D. C., Washington.—District Commissioners receive bids until July 12 for construction of sewers. (See "Machinery Wanted.")

Fla., South Jacksonville.—William W. Lyon, 305 Duval Bldg., Jacksonville, Fla., is preparing plans and will supervise construction of sewerage system and water-works. (City lately noted as voting on issuance of \$90,000 bonds for electric-light plant, sewers and water-works.)

Ky., Lexington.—City will construct eight-inch sanitary sewers on S. Upper and Lime-stone Sts., Maxwell, E. High and E. Maxwell Sts.; bids received until June 30; John Skain, Mayor. (See "Machinery Wanted.")

Ky., Louisville.—City will receive bids until July 7 for construction of Long Ave. sewer, contract No. 81; work consists of 5245 feet vitrified pipe sewer, ranging in size from 10 to 22 inches; average depth of cut 8.5 feet; about 300 cubic yards rock and 45 cubic yards concrete; P. L. Atherton, chairman Sewer Commission, 605 Equitable Bldg. (See "Machinery Wanted.")

La., Kentwood.—City will vote August 1 on \$50,000 bond issue for construction of sewer system and water-works. Address The Mayor. (Recently mentioned.)

Tenn., Nashville.—City will construct about seven miles circular brick trunk sewers, ranging from 30 inches to 111 inches in diameter; bids received until August 10; William W. Southgate, City Engineer. (See "Machinery Wanted.")

Tenn., St. Elmo.—Town Commissioners contracted with Cushman-Fairleigh Engineering Co., 724 James Bldg., Chattanooga, Tenn., to prepare plans and supervise construction of sewer system estimated to cost \$100,000. (Recently mentioned.)

Tex., Beaumont.—City will vote on issuance of \$50,000 sewer bonds. Address The Mayor.

Tex., Bryan.—City will vote on \$20,000 bond issue for completion of sewerage, water and electric-light systems in course of construction. Address The Mayor.

Tex., Corsicana.—City will construct 8700 feet sewer laterals; bids opened June 27. Address The Mayor. (See "Machinery Wanted.")

Tex., Huntsville.—City contemplates construction of sewer system; T. C. Gibbs, Mayor.

W. Va., Roncoveite.—City has engaged Leete & Maupin Engineering Co., Huntington, W. Va., to prepare plans for sewer extension and street paving. (Recently noted to have voted \$16,000 bond issue for extension of sewer and water system and street paving.)

TELEPHONE SYSTEMS

Ark., Conway.—Conway Telephone Co. accepted plans by C. L. Thompson, Little Rock, Ark., for two-story telephone building.

Ark., Mansfield.—Southwestern Telephone & Telegraph Co. (main office Dallas, Tex.) will rebuild telephone plant; install new cables and switchboard.

La., Jonesboro.—Southern Telephone Co. will reconstruct telephone system; require 150 poles and 1500 feet cable in business section; C. P. Couch, superintendent of construction.

Md., Frederick.—Chesapeake & Potomac Telephone Co., 5 Light St., Baltimore, Md., petitioned Board of Aldermen for franchise to construct underground conduits on W. and E. Patrick St.

N. C., Marion.—Marion Telephone Co. incorporated with \$10,000 capital stock by N. B. Blanton, J. D. Blanton and W. Arthur McCall.

N. C., Shallotte.—Seaside, Shallotte & Wilmington Telephone Co. organized to construct telephone system from Seaside via Shallotte, Sumply, Bolivia, etc., to Wilmington, N. C.; George E. Brooks, president; F. P. White, vice-president; C. A. Russ, treasurer; Walter Leonard, secretary; main offices at Shallotte.

Okla., Alva.—North Eaglechief Valley Telephone Co. incorporated by John F. Parsons, Thomas J. Benton and John C. Raymer.

S. C., Gaston.—Farmers' Mutual Telephone Co. incorporated with W. B. Tallaw, president; J. H. Price, vice-president; W. L. Goodwin, secretary; W. D. Pound, treasurer.

S. C., White Pond.—White Pond Telephone Co., O. L. Weeks, secretary, will construct from 25 to 50-mile telephone system; erect 300-instrument exchange. (Recently noted incorporated with \$2000 capital stock.)

Tex., Brenham.—Brenham & Welcome Telephone Co. organized to construct telephone system from Welcome and Bileherville to Brenham, 15 miles; C. Hohlt, president; H. W. Hohlt, vice-president; C. Luedeker, secretary; H. Krueger, treasurer.

Tex., Emory.—Rains County Rural Telephone Co. chartered with capital stock of \$2000 by E. F. Pippin, J. A. Amis, B. A. Carter and M. J. Arrington.

Tex., Humble.—Home Telephone Co., F. M. Burton, general manager, will build two miles exchange lines; toll line, 17 miles; material supplied. (Recently noted incorporated with \$3500 capital stock.)

Va., Arlington.—Government awarded contract to Baltimore Bridge Co., Bush St. and Baltimore & Ohio Railroad, to erect three towers for naval wireless station on Government reservation at Arlington; towers arranged in form of isosceles triangle; central one 600 feet high, and other two 450 feet high and self-supporting; 900 tons of steel required; designed that plant send messages 3000 to 3000 miles; north of main tower will erect two-story building containing mechanical apparatus for operation of station; bids for buildings opened June 28; H. I. Cone, U. S. N., chief of Bureau of Steam Heating, Washington, D. C., is in charge of wireless work; R. C. Hollyday, chief of Bureau of Yards and Docks, Washington, D. C. (Details of buildings recently announced under "Miscellaneous Construction.")

W. Va., Charlestown.—Jefferson County Telephone Co. will erect exchange building; stone foundation; H. P. Cline, contractor.

TEXTILE MILLS

Ark., Ozark.—Cotton Goods.—J. S. Turner, Will Hill, A. H. Treadway and others plan erection of cotton mill.

N. C., Barclayville.—Cotton Goods.—Harnett Manufacturing Co. chartered with \$25,000 capital stock by A. B. Currin, W. J. Alston and Sandy Adams.

S. C., Greer.—Sheeting.—Greers Manufacturing Co. will invest about \$250,000 for addition lately mentioned; will increase from 10,000 to 25,000 spindles and complementary machinery; engineers in charge, Lockwood, Greene & Co., 93 Federal St., Boston, Mass.

WATER-WORKS

Ala., Dothan.—City will vote on issuing bonds to construct water-works and electric-light plant; has plans and specifications for power-house costing about \$75,000. Address The Mayor.

Ala., Gadsden.—City Council is considering construction of 12-inch water main to Southern Iron & Steel Co.'s plant; estimated cost \$10,000.

Ala., Hartsell.—City will issue \$28,000 bonds for water-works, sewers and electric-light plant; plans completed and bids will be asked when bonds are sold; engineer, Xavier A. Kramer, Magnolia, Miss.

Ala., Russellville.—City awarded contract to W. W. Moore, Birmingham, Ala., to construct water-works and electric-light plant; \$24,000 bond issue available; work to be under supervision of Edgar B. Kay of University of Alabama, Tuscaloosa, Ala.

Fla., Port St. Lucie (not a postoffice).—J. H. Rogers, Sewall's Point, Fla., states plans are not perfected for water-works construction recently noted.

Fla., South Jacksonville.—William W. Lyon, 305 Duval Bldg., Jacksonville, Fla., is preparing plans and will also supervise construction of water-works and sewerage system. (City lately noted as voting issuance of \$60,000 for water-works, electric-light plant and sewers.)

La., Kentwood.—City will vote August 1 on \$50,000 bond issue for construction of water-works and sewer system. Address The Mayor. (Recently mentioned.)

La., Kentwood.—City will drill artesian well; bids received until July 6; W. D. Welsh, Mayor; George F. Conant, civil engineer, Kentwood. (See "Machinery Wanted.")

Miss., Friar Point.—City will expend \$10,000 to \$12,000 on water-works construction; capacity 150,000 gallons; steel tanks, concrete reservoir, 6 or 8-inch artesian well; contract for boring well (recently noted) to be let July 4; bids on construction asked later and contract let about July 1; J. D. Robinson, City Clerk; plans by F. G. Prout, Randolph Bldg., Memphis, Tenn.

Mo., Calool.—City contemplates voting on issuance of \$3000 water-works bonds. Address The Mayor.

N. C., Greensboro.—City contemplates constructing steam plant at pumping station; City Commissioners voted to secure plans and specifications.

Okla., Altus.—City voted \$5000 bond issue for deep well. Address The Mayor.

Okla., Altus.—Altus Water Co. organized with \$10,000 capital stock.

Okla., Dewey.—City awarded contract to F. R. Stone for construction of water-works plant; cost \$35,350; J. W. Green, City Clerk.

Okla., Grove.—Town voted on \$35,000 of bonds for installation of water-works and electric-light plant. Address The Mayor.

Okla., Henrietta.—City will vote July 15 on \$18,000 bond issue to construct dam across Little Wichita River, about one mile from city. Address The Mayor.

Okla., Pawhuska.—City submitted proposition to vote on \$50,000 bonds for water-works extension and \$10,000 for improving and extending electric-light system. Address The Mayor. (Lately noted.)

S. C., McBe.—City voted bond issue for construction of water-works. Address The Mayor.

Tenn., Murfreesboro.—J. R. Jetton and Henry King purchased controlling interest in Murfreesboro Water-works Co.; contemplate improvements, including extension of mains and installation of meters.

Tex., Huntsville.—City contemplates drilling additional well at municipal pumping station; T. C. Gibbs, Mayor.

Tex., Melissa.—Melissa Water-works Co. will drill deep well; is prepared to contract with well driller. (See "Machinery Wanted.")

Tex., Bryan.—City will vote on \$20,000 bond issue for completion of water, electric-light and sewerage systems in course of construction. Address The Mayor.

Tex., Olney.—City, M. P. McCracken, Mayor, will construct water-works costing \$12,500; erect frame building for boiler and pump; well; date of opening bids not set; bonds recently noted. (See "Machinery Wanted.")

Tex., Palacios.—City will construct water-works; cost \$18,000; Duncan Ruthven, Mayor. (Bond issue recently noted.)

Va., Norfolk.—Norfolk & Princess Anne Water Co. incorporated with \$50,000 capital stock; John Mariner, president, Norfolk; T. H. Franklin, vice-president, New York; A. E. Ewell, secretary and treasurer, Lynnhaven, Va.; will construct water-works; 20,000,000 gallons capacity; cost between \$90,000 and \$800,000; may establish system of canals or carry water through pipe line; if pipe line is used, will require 14 miles of 36-inch or 42-inch main and two 15,000,000-low-duty electric pumps; work by company; J. H. Coleman of Norfolk, engineer in charge.

W. Va., Clarksburg.—Water-works and Sewerage Board, Scott G. Highland, secretary, will install two 200-horse-power water-tube boilers with 80-foot steel stack, steam and water connections, etc.; engineers, Hering & Fuller, 314 Oak Hall Bldg., Clarksburg. (See "Machinery Wanted.")

WOODWORKING PLANTS

Ala., Attalla.—Cooperage.—Attalla Cooperage Co. will install additional machinery.

Ark., Black Rock.—Wagon Wood Stock.—N. F. Coffey & Sons Company, Black Rock, Ark., will want material for manufacture of singletrees, doubletrees and wagon neck yokes, recently mentioned. (See "Machinery Wanted.")

Fla., Miami.—Wagons.—J. A. Dann will enlarge wagon works; erect two-story reinforced concrete building; cost \$10,000.

Ga., Gainesville.—Wagons.—Gower Wagon Co. organized with \$10,000 capital stock to establish factory; E. N. Gower is president.

La., Hanson City (not a postoffice).—Boxes, Louisiana Box Co. incorporated with \$100,000 capital stock; will operate box factory formerly used by Southwestern Box & Lumber Co.; H. R. McLeod, president, Baton Rouge, La.; Joseph R. Morgan, vice-president, Kenner, La.; Wilfred Collette, secretary-treasurer, Lake Charles, La.

Md., Cumberland.—Furniture.—Charles Winterberg purchased machinery of Cumberland Furniture Works and will install same on third floor of Gibban Garage, 216 N. Center St.; will operate as Honest Furniture Works.

N. C., Lincolnton.—Plow Handles.—McCoy Moretz will erect plow-handle factory.

Mo., St. Louis.—Sashes, Doors, etc.—William G. Frye Manufacturing Co., Roy E. Frye, president, will rebuild sash and door works recently reported burned at loss of about \$25,000.

S. C., Rock Hill.—Furniture.—Helms Willis Furniture Co. incorporated with \$15,000 capital stock by J. C. Helms and A. E. Willis, Jr.

Tex., Jacksonville.—Furniture.—Devereux Furniture Co. chartered with capital stock of \$15,000 by Frank Devereux, George Williamson and Sam Goodson.

Va., Norfolk.—Cabinets.—Machen Account Cabinet Co. incorporated with \$50,000 capital stock; Burton Sillance, president; A. S. Machen, vice-president; Carlton Brinkley, secretary-treasurer.

Va., Norfolk.—Butterdishes.—International Butterdish Corporation incorporated with \$100,000 capital stock; Burton Sillance, president, Norfolk; C. E. Olm, general manager, Portsmouth, Va.; Carlton Brinkley, secretary and treasurer, Norfolk.

Va., Suffolk.—Fruit Packages.—Farmers' Manufacturing Co., W. R. East, president, and J. H. Schlegel, treasurer, has not formulated plans for rebuilding burned plant; will probably erect plant of same capacity and use old foundations for new structure.

W. Va., Charleston.—Barrels.—Shenandoah Valley Barrel Co. (D. M. Swink, Winchester, Va., and associates) purchased machinery for barrel factory recently noted; daily capacity, 1000 apple barrels; will erect two-story 60x120-foot mill-construction building.

BURNED

Ala., Bessemer.—Commissary owned by Sloss-Sheffield Steel & Iron Co. of Birmingham, Ala.; loss \$10,000.

Ala., Hurricane.—Hurricane Lumber Co.'s sawmill; estimated loss, \$75,000.

Ala., Decatur.—Will Reynolds' store, residence and barn.

Ala., Tuscaloosa.—W. F. Flitts, Jr.'s, store building.

Ark., De Vallis Bluff.—W. J. Wilkin building, occupied by Devalls Bluff Democrat.

Ala., Linden.—Emmett S. George's residence; loss \$3000.

Ark., Little Rock.—Asbury Methodist Episcopal Church at 12th and Shiller Sts., Rev. A. O. Evans, pastor; loss \$12,500.

Ark., Prattville.—Burton Binnings' mill and cotton gin.

Ark., Prescott.—Presbyterian church and manse; loss \$5000; Rev. H. W. Steen, pastor.

Ark., Rondo.—Rondo Mercantile Co.'s store.

Ark., Rogers.—Adolph Goeltz's garage; loss \$10,000.

Ark., Upland.—W. L. Risinger's residence, barn and smokehouse.

Ga., Americus.—E. Speer's cotton gin and barn.

Ga., Atlanta.—Tuggle-Gordon Company's store at 252 Peters St.; Smith & Higgins' store at 256 Peters St.; loss \$150,000 to \$200,000.

Ga., Madison.—Oscar Fears' residence.

Ga., Hawkinsville.—A. A. Smith's residence; loss \$7000.

Ga., McRae.—J. E. Hanson's turpentine distillery; loss \$5000.

Ky., Reed.—Clarence Mitchell's residence.

La., Denham Springs.—W. F. Powers' store building.

La., Homer.—Louisiana & Northwestern Railroad's depot, storage-rooms, warehouse and repair shops; loss \$75,000 to \$100,000; J. A. Knox, engineer, Homer.

Md., Annapolis.—Richard G. Chaney's livery stable; loss about \$60,000.

Md., Ironshire.—P. S. West & Son's store building.

Md., Thurmont.—Anderson Elcholtz's mill.

Miss., Brandon.—Cumberland Telephone Exchange, loss \$1500; William Buchanan's block of buildings, loss \$6000.

Miss., Green Grove.—United States Lumber & Planting Co.'s depot and stores.

Mo., Kansas City.—Skating rink at Electric Park, owned by M. G. Helm; loss \$12,000.

Mo., Bonnetterre.—Hotel owned by Mrs. Marie Shannon of Elvins, Mo.; loss \$6000.

N. C., Asheville.—Duncan & Young's store.

N. C., Gastonia.—Spencer Mountain Power Co.'s electric plant; estimated loss, \$20,000.

N. C., Seesom, R. F. D. from Howellsville. Everett & Co.'s sawmill plant.

Okl., Adair.—Missouri, Kansas & Texas Railway System's depot; loss \$10,000; S. B. Fisher, chief engineer, St. Louis, Mo.

Okl., Hartshorne.—Brazell Lumber Co.'s planing mill; estimated loss, \$5000.

S. C., Summerville.—Brawley Miles' residence; loss \$5000.

Tenn., Chattanooga.—Loomis & Hart's furniture factory; loss about \$125,000.

Tenn., LaFollette.—LaFollette Bottling Works; owned by J. V. Henderson.

Tenn., Memphis.—J. E. Munal & Son's sawmill plant in New South Memphis; estimated loss, \$22,000.

Tenn., Nashville.—Home Building Manufacturing Co.'s lumber plant; R. H. D. Hobdy is manager.

Tenn., Pulaski.—Gray Hopkins' barn; loss \$3500.

Tex., Buna.—Commissary owned by Kirby Lumber Co. of Houston, Tex.

Tex., Cuero.—Buchel Block, occupied by Buchel National Bank, etc.; loss on building about \$40,000.

Tex., Dallas.—Oak Cliff Paper Mills damaged; loss \$5000 to \$6000.

Tex., Dallas.—Oak Cliff Paper Mills' two warehouses; loss \$8000.

Tex., Denton.—F. M. Craddock's building; loss \$10,000.

Tex., Denton.—Mrs. T. C. McCormick's residence; loss \$5000.

Tex., Fort Worth.—Fort Worth Stockyards Co.'s 27 acres of pens, three scalehouses, two hay and feed barns and loading docks; loss about \$100,000.

Tex., San Antonio.—Dr. L. L. Shropshire's residence at 407 Martin St.; loss about \$15,000.

Tex., San Antonio.—Ruby Theater and other buildings; loss \$30,000.

Tex., Sulphur Springs.—J. T. Young's planing mill and lumber kiln; estimated loss, \$5000.

Tex., Westminster.—Ashmore Bros.' restaurant; C. D. Manning's store, loss \$12,000; Mrs. J. A. Comeroy's store, loss \$5000.

Tex., Van A'styn.—Steve Parker's residence; loss \$4000.

Va., Altavista.—Virginian Railway's depot; loss \$4000; H. Fernstrom, chief engineer, Norfolk, Va.

Va., Roanoke.—J. B. Andrews' barn; loss \$4000.

Va., Suffolk.—Virginia Manufacturing Co.'s veneer factory; estimated loss \$100,000; owned by Farmers' Manufacturing Co., Norfolk, Va.

W. Va., Thacker Mines.—Thacker Coal & Coke Co.'s 19 dwellings; loss \$15,000.

Ga., Forsyth.—Ogden and Robert Persons will erect office building; brick construction.

Ga., Savannah.—Exchange Bank of Savannah will erect bank building; one story; marble; 40 feet high.

La., Alexandria.—C. M. Waters, S. Barrett, George Wise and A. D. Hundley will erect office building.

La., Covington.—Covington Bank & Trust Co. will erect bank building to replace burned structure. (Recently reported burned.)

Md., Baltimore.—Baltimore Life Insurance Co., Liberty & Clay Sts., is negotiating for site at Charles and Saratoga Sts., and plans to erect office building; details not decided.

Md., Baltimore.—James Carey, Jr., will erect office and warehouse building. (See "Warehouses.")

N. C., Raeford.—Bank of Raeford has plans by Milburn, Heister & Co., Home Life Bldg., Washington, D. C., to erect bank; 50x90 feet; three stories.

N. C., Statesville.—First National Bank will remodel upper floors of building.

N. C., Weaverville.—Farmers and Traders' Bank, I. A. Harris, president, will erect bank building; brick construction.

S. C., North.—E. C. Johnson will erect bank, postoffice and hotel building; three stories; brick; lower floor occupied by People's Bank and postoffice; upper floors for hotel.

S. C., North.—T. A. Jones will erect store, office and lodge building. (See "Stores.")

Tenn., Riceville.—Riceville Bank will erect 20x40-foot fireproof bank building; address proposals to D. H. Roberts. (See "Machinery Wanted.")

Tex., Beaumont.—Josephine Goodhue will erect five to eight-story office and store building; architect not selected. (See "Stores.")

Va., Charlottesville.—Jefferson National Bank is having plans prepared by Milburn, Heister & Co., Home Life Bldg., Washington, D. C., to erect bank; plans completed about July 1.

Va., Portsmouth.—Bank of Portsmouth is having plans prepared by B. F. Mitchell, Norfolk, Va., for bank building; two stories; stone or brick.

Va., Portsmouth.—First National Bank is having plans prepared by B. F. Mitchell, Norfolk, Va., for converting structure into bank building; cost about \$10,000. (Recently noted.)

W. Va., Weirton.—Bank of Weirton, E. T. Weir, director, has plans by R. L. Peterson, Steubenville, O., to erect bank and store building; 40x60 feet; brick, stone and concrete; cost \$5000; bids opened June 28. Address J. F. Lloyd, Weirton.

CHURCHES

Ark., Fort Smith.—First Christian Church will erect mission; cost \$5000. Address The Pastor, First Christian Church.

Ark., Hope.—Catholic Church will erect edifice; brick; cost \$5000. Address Pastor, Catholic Church.

Ark., Little Rock.—Central Presbyterian Church, Rev. Charles R. Hyde, pastor, plans to erect edifice.

Fla., Kissimmee.—Catholic Church has plans by Cairns & Fitchner, Deland, Fla., for edifice; seating capacity 200; pressed brick; Bedford stone trimmings.

Fla., St. Petersburg.—Catholic congregation is having plans prepared by A. H. Johnson, Tampa, Fla., for edifice; brick; 40x50 feet; cost \$8000. (Previously noted.)

Ga., Madison.—Madison Methodist Church will erect edifice to cost \$25,000; architect not selected; bids opened July 10. C. M. Furlow may be addressed. (Recently noted.)

Ga., Senoia.—Lutheran church has plans by E. C. Selz, Atlanta, Ga., for edifice; cost about \$5000; construction begun.

Ky., Louisville.—Third St. Baptist Church, Rev. S. J. Cannon, pastor, will probably erect edifice; Bedford stone; cost \$30,000.

Md., Arlington.—Arlington First Presbyterian Church, Belvedere Ave. near Park Heights Ave., Rev. Gustav A. Briegleb, pastor, will erect edifice; cost about \$30,000.

Md., Baltimore.—St. Margaret's Episcopal Church, Rev. J. H. Boosey, rector, has preliminary plans by John Freund, Jr., 210 E. Lexington St., Baltimore, for edifice; one story and basement; brick and stone; slate roof; concrete foundation; cost \$6000.

Miss., Meridian.—First Presbyterian Church, J. E. Jones, pastor, recently noted as having plans prepared, has no definite plans for building.

Mo., St. Louis.—Oak Hill Presbyterian Church has plans by R. Fallensrath, St. Louis, for proposed edifice; Gothic style; seating capacity 350; cost \$9000.

Mo., St. Louis.—St. Paul's Episcopal Church will expend \$10,000 to erect church; 32x50 feet; steam heating; electric lighting; plans by Roth & Study, Liggett Bldg., St. Louis. (Lately noted.)

Mo., St. Louis.—Mt. Calvary Episcopal Church will erect edifice; one story; cost \$20,000. Address The Rector, Mt. Calvary Episcopal Church.

N. C., Advance.—Building Committee, L. L. Smith, chairman, will receive bids until July 4 to erect Methodist Church; frame; all materials furnished on grounds by committee; plans and specifications at office of W. C. Northrup, architect, Winston-Salem, N. C.

N. C., Winston-Salem.—Southside Moravian Church is having plans prepared by W. C. Northrup, Winston-Salem, for proposed edifice.

S. C., Greenwood.—South Main Street Baptist Church, Rev. J. Q. Adams, pastor, has plans by J. M. McMichael, Charlotte, N. C., for edifice and parsonage; cost about \$40,000.

S. C., Marion.—First Methodist Episcopal Church, William Stackhouse, chairman, will open bids between July 25 and August 1 to erect edifice previously reported; 110x125 feet; one story with gallery and basement; steam heat; electric lighting; cost \$45,000; plans by Wheeler & Stern, Charlotte, N. C. (See "Machinery Wanted.")

S. C., Sumter.—First Methodist Episcopal Church, L. D. Jennings, chairman building committee, will open bids July 15 to erect edifice; 100x120 feet; ordinary construction; terra-cotta, granite, brick and limestone; steam heat; electric lighting; cost \$40,000; plans by Wheeler & Stern, Charlotte, N. C. (See "Machinery Wanted.")

Tenn., Memphis.—Union Church, Fred Boskey, 407 E. Trigg Ave., treasurer, will erect \$3000 edifice.

Tex., Lockhart.—Methodist congregation will enlarge and remodel edifice. Address The Pastor of Methodist Church.

Tex., Rockdale.—Baptist congregation will make improvements to edifice, including Sunday-school room 26x60 feet, heating plant in basement, erection of tower, changing entrance, installing art-glass windows, etc.; cost about \$8000; construction begun. Address The Pastor, Baptist Church.

Tex., Rockdale.—Rockdale Baptist Church will enlarge and remodel edifice. Address The Pastor, Rockdale Baptist Church.

Va., Norfolk.—Centenary Methodist Episcopal Church, Rev. John W. Shackford, pastor, will erect edifice.

Va., Portsmouth.—Monumental Methodist Church will enlarge Sunday-school room; Charles Syer, L. McK. Jack, F. L. Crocker and T. G. Minton, committee.

W. Va., Grafton.—St. Augustine's Catholic Church, Rev. Father Sullivan in charge, will erect rectory to replace present structure, improve approach to church and repair school.

W. Va., Hundred.—Bids received by J. M. Berdine, chairman, until noon June 28 to erect brick church; plans and specifications at office of Giesey & Faris, architects, Wheeling, W. Va., or of Mr. Berdine at Hundred.

CITY AND COUNTY

Ala., Bridgeport.—City Hall.—City will erect proposed city hall; concrete; fireproof. Address The Mayor.

Ala., Decatur.—City Hall.—City will receive sealed proposals from June 28 to July 11 at 8 P. M. to furnish material and erect city hall; plans and specifications on file in Mayor's office or at office of architect; R. H. Hunt, Chattanooga, Tenn.; certified check for \$5000; usual rights reserved; H. A. Skeggs, Mayor. (Previously noted.)

Ala., Hamilton.—Jail.—Marion County Commissioners will award contract in August to erect jail to replace present structure; fireproof; cost from \$12,000 to \$20,000. Address Mack Pearce, Hamilton. (Recently noted.)

Fla., Sumterville.—Jail.—Sumter County Commissioners' plans for courthouse and jail are not definitely determined. (See "Courthouses.")

Ky., Louisville.—Hospital.—Hospital Commission is having plans prepared by D. X. Murphy & Bro., Louisville, for city hospital; pavilion and cottage system, consisting of central administration and four ward buildings arranged symmetrically along south of connecting corridor, while service, clinic, operating, psychopathic and special treatment buildings are on north side of corridor; isolation, help, nurses' and power buildings detached from main group; generally three stories and high basement; ward buildings to have flat roofs and parapet walls to provide for roof gardens; elevator service;

BUILDING NEWS

BUILDINGS PROPOSED

APARTMENT-HOUSES

Fla., Bradentown.—Harry Wadham will erect apartment and moving-picture theater building.

Fla., Jacksonville.—Mrs. A. C. Martindale will erect apartment-house; two stories.

Fla., Miami.—Geo. Mangors is erecting proposed apartment and store building; 75x87 feet; three stories; reinforced concrete; mill construction; 54 rooms; 10 bathrooms; 7 toilet-rooms; electric lighting; cost \$25,000; plans by Geo. L. Pfeiffer, Lemon City, Fla.

Ga., Augusta.—Mrs. Katherine Heffernan will erect apartment-house two stories; four apartments; cost \$12,000.

Ky., Louisville.—Imperial Realty Co. is reported to erect apartment-house and several store buildings.

La., New Orleans.—Edward Marx has plans by Keenan & Weiss, New Orleans, for Arcadia Apartment-House, two stories; finished basement; four apartments. (Recently noted.)

Md., Baltimore.—John G. Rhode, 1042 N. Stricker St., and Martin Rhode, 1800 Pennsylvania Ave., have plans by John R. Forsythe, 232 St. Paul St., Baltimore, for apartment-house at Mont Alto; three stories; brick and stone; cost \$25,000; contractors estimating are Fidelity Construction Co., 64 Knickerbocker Bldg.; Thomas L. Jones & Son, 410 W. Saratoga St.; Park Heights Construction Co., R. H. Frazier & Son, 230 St. Paul St., all of Baltimore. (Recently noted.)

Mo., Kansas City.—H. S. Siegrist will erect apartment-house; hollow tile; cost \$15,000.

Mo., Kansas City.—C. O. Jones will erect apartment-house; brick; cost \$22,000.

Mo., Kansas City.—J. E. Eldridge will erect apartment-house; brick; cost \$6000.

Mo., Kansas City.—Mrs. Maud Dinan will erect store and apartment-house; brick; cost \$7000.

Mo., Kansas City.—J. V. Straub will erect apartment and store building; brick; cost \$10,000.

Mo., St. Louis.—Stamford Improvement Co. has plans by A. Blair Riddington, 1102 Fulleton Bldg., St. Louis, for apartment-house; 55x66 feet; ordinary construction; low-pressure steam heat; cost \$22,000; subcontracts; address architect.

Mo., St. Louis.—Hackman & Co. will erect two tenement-houses; two stories; double; cost \$4500 each.

Mo., St. Louis.—Ettrick Realty Co. is having plans prepared by A. Blair Riddington, 122 N. 7th St., St. Louis, for apartment-house;

cost \$150,000; construction under supervision of architect.

Tenn., Nashville.—Mrs. Annie Simons will erect apartment-house; two stories; brick.

Va., Richmond.—Thomas F. O'Connor will erect two-story tenement-house (three dwellings); brick; cost \$6000.

Va., Richmond.—E. T. Frost and D. J. Halloran are having plans prepared by M. C. West, 44 Merchants' National Bank Bldg., Manchester, Va., to erect apartment and store building corner Allison and Broad Sts.; approximate cost, \$15,000.

ASSOCIATION AND FRATERNAL

Ark., Little Rock.—West End Lodge, No. 13, Ancient Order of United Workmen, will erect lodge building; 50x140 feet.

D. C., Washington.—International Moral and Social Commission, Richmond P. Hobson, president; plans to erect structure to cost \$500,000; construction to begin when \$100,000 has been provided.

Miss., Gulfport.—Fraternal Building Association, incorporated with \$25,000 capital stock, plans to erect joint lodge building to cost between \$15,000 and \$20,000. (Knights of Pythias and other orders recently noted to erect building.)

N. C., Raleigh.—Young Men's Christian Association, Cary J. Hunter, president, has purchased site 70x150 feet and will erect Young Men's Christian Association building. (Previously noted.)

S. C., North.—T. A. Jones will erect store, office and Masonic lodge building. (See "Stores.")

Tex., San Antonio.—San Antonio Hermann Sons' Home Association, T. Windlinger, grand secretary, 105 Villita St., will receive bids until July 10 to erect building; certified check for \$500, payable to association; plans and specifications at office of Arthur T. Hermann, 524 Moore Bldg., San Antonio. (Recently detailed.)

Va., Richmond.—Young Women's Christian Association will, it is reported, start campaign to raise \$150,000 to erect building. (Recently noted as Young Men's Christian Association.)

BANK AND OFFICE

Ark., Little Rock.—Citizens' Investment & Security Co. will remodel building at 2d and Louisiana Sts.; install new floors, etc.

Ga., Atlanta.—Pittsburg (Pa.) Plate Glass Co. will erect distributing quarters and offices. (See "Warehouses.")

concrete foundations; brick walls; white stone trimmings; steel girders; reinforced concrete floors and roofs; administration building will have stone basement and first story; enclosed roof garden; detached buildings to have red tile roofs; fireproof; elevators cut off by fireproof partitions and lighted by wire glass in metal frames; stairs with terrazzo, and also cut off from corridor by partition; have metal-frame windows glazed with wire glass; portion of building containing elevators carried one story higher than administration building to care for elevator machinery; operating-rooms heated by hot-blast system; cost about \$300,000. (Recently noted.)

Ky., Paris.—Jail.—Louisville & Nashville Railway, W. H. Courtenay, chief engineer, Louisville, Ky., is reported to erect jail for Bourbon county.

Md., Baltimore.—Engine-houses.—City will have plans prepared by Robert C. Ulrich, law bldg., Baltimore, for engine-house at Fulton Ave. and Baker St. (Previously noted.)

N. C., Charlotte.—Police Station.—City is having plans prepared by Louis Asbury, Charlotte, for improvements and changes to police headquarters; cost about \$300.

Tex., Beaumont.—Jail.—City will probably vote on \$15,000 bond issue to erect jail. Address The Mayor.

W. Va., Charleston.—Market.—City contemplates erection of market. Address The Mayor.

COURTHOUSES

Fla., Sumterville.—Sumter County Commissioners' plans for courthouse and jail are pending an election to vote on site; J. Wilson, clerk. (Recently noted.)

Ga., Hinesville.—Liberty County Commissioners, E. C. Miller, clerk, will receive plans and specifications until noon July 5 for brick courthouse; cost not to exceed \$35,000. (Previously mentioned.)

Mo., Springfield.—Bids received until June 26 by Greene County Court, through Ellis Paxson, superintendent, for completion of courthouse; 192x98 feet; two stories and basement now constructed and bids are to be received for completion of same and erection of additional story; stone, brick, tile, concrete walls, fireproof floors and stairs, structural iron, plate-glass, composition roof; bids received for completion of building as a whole, and also for heating, plumbing and interior finish; certified check for 5 per cent. amount of bid, payable to County Treasurer; plans and specifications at office of superintendent as above, or of Milner, Opel & Torbitt, architects, Republican Bldg., Springfield, or may be had on deposit of \$25; blank form of proposals from superintendent or architect. (Previously noted.)

Tenn., Chattanooga.—Hamilton county has plans by R. H. Hunt, Chattanooga, for courthouse; three stories and basement; East Tennessee gray marble construction as far as practical; "T"-shape, with base of "T" slightly shortened; six entrances; tiled corridors; steel shutters and doors with combination locks for each office; J. G. Barnwell and Clarence T. Jones, supervising architects, also of Chattanooga. (Recently noted.)

W. Va., Wheeling.—Ohio County Commissioners will receive bids until 10 A. M. July 5 for alterations and addition to courthouse; plans and specifications at office of George S. Mooney, architect, 402-403 Schmullbach Bldg., Wheeling; George W. Oldham, clerk.

DWELLINGS

Ala., Gadsden.—A. Beekman of Natchez, Miss., will erect six dwellings.

D. C., Washington.—George P. Parton, 4511 Wisconsin Ave. N. W., has plans by Cloughton West, Oxford Bldg., Washington, for residence on Nebraska Ave. near Wisconsin Ave. N. W.; two stories; bungalow type; 42x33 feet; pebble-dash finish; red slate roof; hot-water heat; gas and electric lights; cost about \$900.

D. C., Washington.—J. J. Early, 2131 G St. N. W., will erect residence on Lamont St. near 17th St. N. W.; patio in center opening through to top; 75 feet deep; site has frontage of 25 feet; exterior of tapestry brick; Indiana limestone trimmings; tile roof; balusters to steps in front and around porch of east cement; two stories; fireproof; construction begun.

Fla., Clearwater.—F. G. Duthie will erect residence; two stories; 14 rooms.

Fla., Clearwater.—Sloan & Nicholson will erect four dwellings; one story.

Fla., Jacksonville.—John A. Cunningham will erect residence; two stories; frame.

Fla., Jacksonville.—R. B. Brooks will erect six cottages; one story; frame.

Fla., Tampa.—Edwin Balcom is having plans prepared by Bonfoey & Elliott, Tampa, for residence to cost \$3500.

Fla., Tampa.—H. T. Lykes is having plans prepared by A. H. Johnson, Tampa, for residence at Ballast Point to cost \$4000.

Fla., Tampa.—T. R. Young is having plans prepared by Bonfoey & Elliott, Tampa, for residence; cost \$4000.

Fla., Tampa.—A. B. Hill will erect bungalow.

Ga., Atlanta.—Dr. J. W. Mayson is having plans prepared for residence.

Ga., Atlanta.—E. H. Cone is planning to erect residence.

Ga., Atlanta.—F. W. Northcutt will erect residence.

Ga., Atlanta.—Mrs. Alime Timmons will erect residence; cost \$500.

Ga., Atlanta.—Citizens' Bank will erect residence; cost \$4500.

Ga., Atlanta.—W. L. Cosgrove will erect residence.

Ga., Atlanta.—W. H. Miller will erect residence.

Ga., Atlanta.—J. B. Bowen will erect residence.

Ga., Atlanta.—Frank Orme will erect residence.

Ga., Atlanta.—Mrs. E. N. Grant will erect residence; cost \$3500.

Ga., Atlanta.—Z. P. Gunn will erect two dwellings on Candler St.; cost \$6000.

Ga., Macon.—J. Clay Murphey will erect two dwellings; two stories; frame; cost \$3600.

Ga., Toccoa.—F. Marion Thomason and C. W. McClure, both of Atlanta, Ga., contemplate erection of summer hotel and several bungalows.

Ga., Thunderbolt.—Francis E. Green of Philadelphia, Pa., and Camden, N. J., will erect bungalow; two stories, with 1½-story effect; Oriental red and buff brick; front porch 12 feet square, with heavy pillars and eight-foot extension without roof; living-room with beam ceilings, oak floor and recessed tile fireplace.

Ky., Lexington.—T. C. McDowell will expend \$3000 to remodel residence.

La., New Orleans.—N. B. Shelby of Ellisville, Miss., will erect residence.

La., New Orleans.—Frank L. Barker will erect residence.

La., New Orleans.—Ept Rosenberg, 1521 Duffaux St., has plans by Keenan & Weis, Hibernia Bank Bldg., New Orleans, to erect dwelling; 30x100 feet; lately noted; address architects.

Md., Baltimore.—William A. Flamm, 126 N. Calhoun St., is having plans prepared by John Freund, Jr., 210 E. Lexington St., Baltimore, for residence on Bancroft Rd.; two and a half stories; frame; tile work; hardwood floors; electric lights; hot-water heat; 27x38 feet; cost \$6500; bids opened about July 3 or 5; architect may be addressed.

Md., Baltimore.—Charles Pitts, Jr., 200 E. Preston St., has plans by Mottu & White, 322 N. Charles St., Baltimore, for improvements and alterations to residence; contractors estimating are Thomas B. Stanfield, 107 Clay St., and Edward Brady & Son, 1113 Cathedral St., both of Baltimore.

Md., Baltimore.—Wilson H. Carter, 2825 Madison Ave., has plans by Jacob F. Gerwig, 210 E. Lexington St., Baltimore, for six semi-detached dwellings on Edmondson Ave.; two stories; brick; 14.6x45 feet; tin roofs; furnace heat; cost \$10,000; construction by owner.

Md., Baltimore.—Walter Westphal, 1700 N. Bond St., purchased site at Saratoga, Pulaski, Smallwood and Mulberry Sts. and will erect number of residences.

Md., Baltimore.—Philip Minor of B. W. & E. Minor, 224 W. Pratt St., has plans by Stanislaus Russell, 2900 Clifton Ave., Baltimore, for two residences on Garrison Ave.; two stories; frame; 21 feet 10 inches by 54 feet 10 inches; cost \$3000.

Md., Baltimore.—Mont Alto Groves Construction Co., 816 Equitable Bldg., is having plans prepared by D. C. Slonaker, Windsor Mills Rd. and Garrison Ave., Baltimore, for residence on Allendale Ave.; two and a half stories; frame; 25x52 feet; cost about \$5000; construction by owner.

Md., Baltimore.—J. W. Tottle, 319 W. Lexington St., is having plans prepared by Howard Stevenson, 2018 W. North Ave., Baltimore, for residence at Roland Heights; one and a half stories; overhanging slate roof; contractors estimating are John Cowan, 106 W. Madison St.; Gladfelter & Chambers, 2072 Woodberry Ave.; G. W. Tovel, Eutaw Pl. and Dolphin St., all of Baltimore, and Roland

Park Co., 408 Roland Ave., Roland Park, Md. (Lately noted.)

Md., Baltimore.—Welsh Construction Co., 11-13 E. Fayette St., is having plans prepared by Jacob F. Gerwig, 210 E. Lexington St., Baltimore, for 16 dwellings on Moreland Ave.; twin construction; 15x61 feet; porch fronts; cost \$1500 each; construction by owner.

Md., Raspeburg.—Gatch Methodist Episcopal Church, Rev. E. P. Fellenbaum, pastor, has plans by Henry J. Tinley, 314 N. Charles St., Baltimore, Md., for parsonage; two and a half stories; frame; slate roof; cost about \$4000.

Mo., Kansas City.—Harry Randal will erect six dwellings; frame; cost \$8000.

Mo., Kansas City.—J. A. Finch will erect dwelling; brick veneer; cost \$4500.

Mo., Kansas City.—G. O. Bacon will erect residence; brick; cost \$5000.

Mo., Kansas City.—T. O. Wheeler will erect residence; stone veneer; cost \$3000.

Mo., Kansas City.—A. Freeman will erect two dwellings; frame; cost \$4000.

Mo., Kansas City.—W. E. Small will erect residence; stone veneer; cost \$6000.

Mo., Kansas City.—Pratt & Pratt will erect residence; stone veneer; cost \$3500.

Mo., Kansas City.—John Hayes will erect residence; stone veneer; cost \$7000.

Mo., Kansas City.—W. F. Tilton will not, at present, erect dwelling.

Mo., Kansas City.—Millard Russell of Russell Brokerage Co. will erect residence; cost \$15,000.

Mo., Kansas City.—Joseph T. Crosby will erect dwelling; stone veneer; cost \$3500.

Mo., Kansas City.—J. E. Eldridge will erect dwelling; frame; cost \$3000.

Mo., Kansas City.—Mrs. Anna Shea will erect residence; stone veneer; cost \$4500.

Mo., Kansas City.—W. E. Booe will erect dwelling; stone veneer; cost \$4000.

Mo., Kansas City.—Downing Bros. will erect dwelling; brick veneer; cost \$4200.

Mo., St. Louis.—St. Louis Investment Co. will erect residence; two stories; cost \$4000.

N. C., Albemarle.—J. S. Eford has plans by Louis H. Asbury, Charlotte, N. C., for residence; 11 rooms; 66x75 feet; colonial style; four columns; hot-water heat; electric lighting; cost \$12,000; date of opening bids not set. (See "Machinery Wanted.")

Okla., Oklahoma City.—S. J. Kreps will erect residence; frame construction; cost \$3500.

Okla., Oklahoma City.—E. E. Wittler will erect residence; frame; cost \$3600.

S. C., Greenwood.—South Main Street Baptist Church will erect church and parsonage. (See "Churches.")

S. C., North.—J. Clifton Price will remodel residence.

Tenn., Knoxville.—E. H. Prater will erect residence; cost \$4000.

Tenn., Nashville.—D. J. Kimbrough, 2218 Patterson St., has plans by J. A. Williams, Nashville, for dwelling; two stories; 10 rooms; ordinary construction; veneered brick; tin shingle roof; heating not decided; cost \$5000.

Tenn., Nashville.—Dan E. McGuin will erect two dwellings; brick; cost \$4000 each.

Tenn., Nashville.—George S. Farish will erect residence; stone; cost \$3000.

Tenn., Nashville.—I. C. Miller will erect residence; brick veneer; cost \$3000.

Tenn., Nashville.—D. T. Kimbrough will erect residence; two stories; brick veneer; cost \$4000.

Tenn., Nashville.—C. R. Vanderford will erect residence; eight rooms; brick; cost \$3000.

Tenn., Nashville.—L. S. Loeb will erect residence; brick construction; cost \$4000.

Tex., Cuero.—Presbyterian Church will erect manse. Address The Pastor, Presbyterian Church.

Tex., Beaumont.—Broussard, Little & Co. will erect building for dwelling and undertaking establishment; two stories; brick.

Tex., Lockhart.—R. T. Trigg will erect cottage.

Tex., Pearsall.—David Hines will erect residence; two stories; frame.

Tex., Pearsall.—C. B. Woodward will erect residence; two stories; brick veneer; 12 rooms; construction begun.

Tex., San Antonio.—Mrs. Bedell Moore will not erect residence, as recently reported.

Va., Alexandria.—Jefferson Atchison is having plans prepared by Milburn, Helster & Co., Home Life Bldg., Washington, D. C., to erect dwelling.

Va., Leesburg.—J. Page Laughlin is having

plans prepared by Milburn, Helster & Co., Home Life Bldg., Washington, D. C., to erect dwelling.

Va., Luray.—R. Shandelson will erect residence.

Va., Luray.—F. T. Jobe will erect residence.

Va., Richmond.—A. W. Bennett will erect residence; brick; cost \$6000.

Va., Staunton.—W. E. Manor will erect residence.

W. Va., Parkersburg.—Junius H. Radaker will erect 50 or more dwellings.

W. Va., Huntington.—John S. Marcum will erect residence.

W. Va., Martinsburg.—C. C. Keedy will erect residence and business building. (See "Stores.")

W. Va., Wheeling.—George Hunt will erect residence in Edgedale; two stories; frame.

W. Va., Grafton.—St. Augustine's Catholic Church, Rev. Father Sullivan in charge, will erect rectory. (See "Churches.")

GOVERNMENT AND STATE

Fla., Tallahassee.—State Buildings.—State Building Commission, Albert W. Glichrist, chairman, plans to erect building for Supreme Court of State and library building.

Miss., Bay St. Louis.—Postoffice.—Joseph F. Caneneuve receives bids until noon June 29 to erect postoffice building. (See "Miscellaneous Structures.")

Okla., Granite.—Reformatory.—State Board of Public Affairs has plans by Layton & Smith, Oklahoma City, Okla., for proposed State reformatory; cost \$35,000.

S. C., Columbia.—Convention Hall.—City of Columbia and South Carolina Agricultural and Mechanical Society purchased auditorium with seating capacity of 25,000 at Greensboro, N. C., for \$25,000; will remove to Columbia and locate on State fair grounds; 167x400 feet; 68,800 square feet floor space. Address The Mayor.

Tenn., Franklin.—Postoffice.—Treasury Department, James Knox Taylor, supervising architect, Washington, D. C., will, it is reported, erect postoffice building; appropriation of \$60,000.

Tenn., Knoxville.—Exposition Buildings.—Appalachian Exposition Committee will have plans prepared for additions to live-stock building; M. Jacob, H. N. Camp, D. E. Tate and D. F. Brown, subcommittee.

Tex., Sulphur Springs.—Postoffice.—Treasury Department, office of supervising architect, Washington, D. C. Sealed proposals received in this office until 3 P. M. August 4 and then opened for construction, complete (including plumbing, gaspiping, heating apparatus, electric conduits and wiring), of the United States Postoffice at Sulphur Springs, Tex., in accordance with drawings and specifications, copies of which may be obtained from the custodian of site at Sulphur Springs, Tex., or at this office at the discretion of the supervising architect; James Knox Taylor, supervising architect. (Recently noted.)

W. Va., Wheeling.—Lockkeeper's Houses.—Bids will be received at United States Engineer Office, Wheeling, W. Va., until 11 A. M. July 27 to erect six two-story eight-room lockkeepers' houses, two each at dams No. 12, 19 and 20, Ohio River; information on application; F. W. Altstaetter, Major, Engineers.

HOTELS

Ark., Fordyce.—F. W. Gibb & Co., architects, Little Rock, Ark., are receiving bids to erect proposed Commercial Hotel; two stories; pressed brick; steam heat; tile floor; cost \$15,000.

Fla., Bradentown.—Sims & Bryan of Hagerstown, Md., plan to erect hotel; 40 rooms; concrete construction.

Ga., Hartwell.—Chamber of Commerce is interested in erection of proposed hotel; three stories; brick.

Ga., Toccoa.—F. Marion Thomason and C. W. McClure, both of Atlanta, Ga., contemplate erection of summer hotel and several bungalows.

Ga., Tybee.—R. T. McFadden will erect hotel; frame construction; 110 rooms.

Ky., Dawson Springs.—Wilhelm Hotel Co. will erect hotel.

Ky., Lebanon.—J. T. Vaughn of Campbellsville, Ky., purchased Hardy Hotel and will expend several thousand dollars to remodel and improve.

La., Donaldsonville.—Donaldsonville Hotel Co., V. Maurin, chairman building committee, will open bids July 12 to erect hotel lately noted; 83x65 feet; steam heating; electric

lighting; electric elevators; cost \$36,000; plans by Favrot & Livaudals, New Orleans, La.

Mo., Blue Mountain.—Blue Mountain House will make improvements and enlarge hotel.

Mo., Liberty.—Liberty Hotel will organize to erect \$30,000 hotel.

N. C., Charlotte.—Beauregard J. Summerow is having plans prepared by Louis Ashbury, Charlotte, for boarding-house; 24 rooms; four stories, basement and attic; lavatories, hot-water, lights, etc., in every room; cost about \$10,000.

N. C., Fayetteville.—Hotel Lafayette. Robert Irwin, general manager, will enlarge and improve hotel, adding about 30 bedrooms, install elevator, etc.

N. C., Victoria.—J. S. Fowler and T. B. Earle, both of Anderson, S. C., and associates are promoting establishment of summer resort at Horse Cove; have option on 2000 acres of land, 40 acres of which will probably be covered by lake; plan erection of hotel, etc.

S. C., North.—E. C. Johnson will erect bank, postoffice and hotel building. (See "Bank and Offices.")

Tenn., Harriman.—Archer Hotel will erect addition to contain dining-room, kitchen and rooms above.

Tenn., South Pittsburg.—Walter M. Cameron is promoting company to erect hotel; brick and concrete; three stories; cost \$10,000 to \$15,000.

Tex., Wharton.—G. A. Harrison & Co., Burr, Tex., has plans by C. D. Hill & Co., Houston, Tex., to erect hotel; 58x100 feet; three stories; brick. Address Mr. Harrison. (Lately noted.)

Va., Ocean View.—Virginia Railway & Power Co., Norfolk, Va., plans improvements at Ocean View, including erection of hotel, rearrangement of landscape along beach, boardwalk, etc.

MISCELLANEOUS

Ala., Eufaula.—Hall.—H. C. Holleman will erect building to be occupied by Eufaula Rifles and Second Regiment Band; two stories.

D. C., Washington.—Endowment Building.—International Moral and Social Commission, Richmond P. Holson, president, plans to erect structure. (See "Association and Fraternal.")

Fla., Bradentown.—Garage.—Henry F. Curry of Tampa, Fla., and Bradentown, will, it is reported, erect garage.

Fla., Deland.—Garage and Barn.—J. W. Dutton has plans by Cairns & Fletcher, Deland, for garage and barn.

Fla., Clearwater.—Garage.—G. A. Stempel will erect garage and stable; 75x75 feet; two stories; brick; cement floor; tar and gravel roof; W. N. Reece, Clearwater, probable contractor.

Fla., St. Petersburg.—Fair Buildings.—Fair Association is having plans prepared for proposed building; concrete; 80x90 feet; two stories; cost \$20,000.

Ga., Augusta.—Orphanage.—Augusta Orphanage, James L. Fleming, president, has plans by L. E. Goodrich, Augusta, for orphanage; 80x80 feet; fireproof construction; steel forms furnished by Morrill Molds Corporation, 493 Corcoran Bldg., Washington, D. C. (Recently noted.)

Ga., Macon.—Hospital.—Macon Hospital plans to enlarge and improve hospital.

Ga., Macon.—Fair Buildings.—Gulf Coast Tropical Fair Association, J. A. Joulain, general manager, plans to erect auditorium, agricultural hall, buildings for live-stock, poultry, kennels, cafes, barns, etc.; construct mile race track, etc.

Ky., Louisville.—Clubhouse.—Outdoor Art League Country Club incorporated with \$20,000 capital stock by Caroline A. Leech, Mary M. Whayne, Mamie C. Stratton and others; will erect country clubhouse to cost \$12,000 to \$15,000.

Md., Baltimore.—Lunchroom.—George W. Hyde, proprietor of Crown Lunchroom, 225 E. Baltimore St., is having plans prepared by Charles M. Anderson, 324 N. Charles St., Baltimore, for lunchroom at 322-24 N. Howard St.; details not determined.

Md., Ruxton.—Clubhouse.—L'Hirondelle Club has plans by T. George Carroll, 1209 Continental Bldg., Baltimore, Md., for clubhouse; two stories; frame; overhanging slate roof; ballroom 40x60 feet. (Recently noted.)

Miss., Bay St. Louis.—Postoffice.—Joseph F. Cazeneuve, vice-president and cashier of Hancock County Bank, receives bids until noon June 29 to erect postoffice building on Main St.

Mo., St. Louis.—Orphanage.—National Benevolent Association of Christian Church will not erect building recently noted.

N. C., Oxford.—Fair Buildings.—Granville County Fair Association will erect temporary buildings; cost \$3500 to \$1000; William Landis, chairman of committee.

Okla., Ardmore.—Soldier's Home.—Confederate Soldiers' Home petitioned Legislature for appropriation of \$100,000 to erect additional buildings.

Okla., McAlester.—Armory.—Tal Milwee, 402 E. Miami St., McAlester, will award contract July 15 to erect building for Company D, Oklahoma Guards, lately noted; 50x100 feet; two stories; buff brick with Carthage stone trimmings; fireproof; electric lights; first floor concrete; concrete sidewalks; roof supported by five steel trusses, 50-foot span; airdome 16 feet square, with 20 steel and wireglass windows; three bath and toilet rooms; cost \$12,000; plans by N. Bergerson, 200 1/2 E. Choctaw St., McAlester.

Okla., Muskogee.—Hospital.—John G. Lieber is interested in organization of company to erect hospital to cost about \$20,000; will be conducted by Roman Catholic Sisters.

Tenn., Memphis.—Stockyards Buildings.—Union Stockyards Co. will erect 14 buildings to occupy space 100x200 feet; will expend \$100,000 for improvements this year. (Recently noted.)

Tenn., Memphis.—Clubhouse.—Memphis Building Co. is being organized by L. M. Weathers and others to erect clubhouse for Memphis Athletic Club; is having plans prepared by Weathers-Foley Company, Memphis; steel and concrete; fireproof construction; seven stories and basement; exterior finished with polished granite, pressed brick and stone; interior finish of marble, tile, plaster and hardwood; low-pressure steam heat; basement to contain swimming-pool, shower baths, Turkish baths, etc.; two high-speed passenger elevators; cost \$258,000.

Tex., Calvert.—Clubhouse.—Calvert Country Club will erect clubhouse.

Tex., Goliad.—Market.—John Dill will erect market building; construction begun.

Tex., Fort Worth.—Stockyards Buildings.—Fort Worth Stockyards Co. will rebuild 27 acres of pens, three scalehouses, two hay and feed barns and loading docks reported burned; loss about \$100,000.

Va., Hampton.—Fire Station.—Armstrong Bros. will receive bids until noon July 7 to erect frame building for fire apparatus and assembly hall for Wyeth Protective Association; plans and specifications at office of Armstrong Bros. at Hampton, store of W. C. Perkinson near George Wyeth Schoolhouse, and residence of William Thompson on the boulevard; L. M. J. Beale, secretary-treasurer; William Thompson, president Wyeth Protective Association.

RAILWAY STATIONS

Ala., Eufaula.—Central of Georgia Railroad Co., C. K. Lawrence, chief engineer, Savannah, Ga., will make improvements to passenger station, including raising entire structure 18 inches, construction of ticket office, lobby and additional ladies' room, shed along main passenger track the length of eight cars, construction of cement walk 20 or more feet wide around entire structure, etc.; work will be done by company's force.

Ala., Prattville.—Louisville & Nashville Railway, W. H. Courtenay, chief engineer, Louisville, Ky., will double capacity of depot.

Fla., Tampa.—Ocala Northern Railroad Co., E. P. Rentz, president, Ocala, Fla., will erect passenger station.

Ga., Dublin.—Wrightsville & Tennille Railroad Co., D. R. Thomas, superintendent, Tennille, Ga., will let contract about July 19 to remodel present warehouse and depot recently noted; warehouse 45x300 feet; one story; sheet iron; depot and office 45x60 feet; two stories; brick; steam heat; electric lighting; cement tile sidewalks; cost \$8000. (See "Machinery Wanted.")

Ga., Maxton.—Seaboard Air Line Railway Co., W. L. Seddon, chief engineer, Portsmouth, Va., will not erect depot as recently reported.

Ga., Waycross.—Atlantic Coast Line Rwy., E. B. Pleasants, chief engineer, Wilmington, N. C., will erect proposed union depot to replace present structure.

Ky., Guthrie.—Louisville & Nashville Railroad Co., W. H. Courtenay, chief engineer, Louisville, will not erect new depot (recently reported); will remodel and enlarge present freight and passenger station.

Ky., Paris.—Bluegrass Traction Co. will erect passenger and freight station; two stories; brick and cut stone.

La., Baton Rouge.—Yazoo & Mississippi

Valley Railroad Co., A. S. Baldwin, chief engineer, Chicago, Ill., will expend \$3800 to erect umbrella sheds; 15 feet 6 inches by 43 1/2 feet; ordinary construction; electric lighting; plans and construction by company. (Previously noted.)

La., Hammond.—Illinois Central Railroad Co., A. S. Baldwin, chief engineer, Chicago, Ill., opened bids June 15 to construct passenger station; 27 1/2 x 208 feet; ordinary construction; electric lighting; hot-water heating; cost \$30,000. (Lately noted.)

Md., Port Deposit.—Pennsylvania Railroad, Alex. C. Shand, chief engineer, Philadelphia, Pa., will, it is reported, soon begin erection of proposed passenger station.

Mo., Cape Girardeau.—St. Louis & San Francisco Railway, F. G. Jonah, chief engineer, St. Louis, Mo., will erect \$35,000 passenger station.

Okla., Hodgen.—Kansas City Southern Railway, C. E. Johnson, chief engineer, Kansas City, Mo., will erect depot.

SCHOOLS

Ala., Livingston.—Alabama Normal College, W. S. Nichols, treasurer, is reported to erect dormitory; three stories; red brick; white columns in front; steam heat; water-works; acetylene gas light; cost about \$15,000.

Ala., Montevallo.—City will vote July 11 on bond issue to erect school. Address The Mayor.

Ark., Little Rock.—School Board, E. L. Rodgers, chairman of committee on new buildings, will receive bids until noon July 15 to erect auditorium and gymnasium building; certified check for \$1000; plans and specifications at office of George R. Mann, architect, Little Rock.

Ark., Crawfordsville.—City will erect school to cost about \$30,000. Address The Mayor.

Ark., Blytheville.—City will erect \$30,000 school. Address The Mayor.

Ark., Little Rock.—Rev. John Hoenderop will erect school for negro Catholics to be known as St. Bartholomew School for Negroes; two stories; brick; cost \$15,000 to \$20,000.

Ark., Sheridan.—School Board is having plans prepared by Clyde A. Ferrell, Little Rock, Ark., for school.

Ark., Tillar.—City will erect school to cost about \$15,000; plans by Clyde A. Ferrell, Little Rock, Ark.

D. C., Washington.—District Commissioners will expend \$65,000 to erect addition and make alterations to Manual Training School No. 129; 80x200 feet; fireproof construction; steam heat; electric lighting; alterations include new boilers and general change in heating and ventilating; all work included in general contract except engines and equipment for work shops, which will be let separately. (Recently noted to receive bids until July 5.)

Fla., Gary.—Hillsboro County School Board, Tampa, Fla., will probably erect schools at Gary and Port Tampa City, Fla.

Fla., Knowles.—City will erect school. Address The Mayor.

Fla., Pensacola.—Catholic church will erect school at Baylen and Chase Sts.; two stories and basement; cost about \$35,000.

Fla., Port Tampa City.—Hillsboro County School Board, Tampa, Fla., will probably erect schools at Port Tampa City and Gary, Fla.

Ga., Vienna.—City will vote on bond issue to erect school. Address The Mayor.

Ky., Louisville.—Business director of Board of Education, Administration Bldg., 8th and Chestnut Sts., will receive bids until 2 P. M. July 5 to erect addition, alterations and installation of heating apparatus in Girls' High School building at 5th and Hill Sts.; plans and specifications at office of Mason Maury, architect, Board of Trade Bldg.; also receive bids at same time for following work at Lincoln school building, at Morgan and Bland Sts.: Fireproof floors, telephone and vacuum cleaning systems; plans and specifications at office of Thomas & Bohne, Keller Bldg., Louisville; Samuel D. Jones, business director.

Ky., Middlesboro.—Board of Education will award contract July 6 to erect proposed school; 73x83 feet; ordinary construction; steam heating; electric lighting; cost \$18,000; plans by Baumann Bros., Knoxville, Tenn.

La., Franklinton.—V. L. Roy will establish agricultural high school.

La., Columbia.—Caldwell Parish School Board, E. H. Turner, superintendent, will erect proposed school in Ward 2.

La., New Orleans.—City has plans by E. A. Christy, chief architect, Room 26 City Hall, New Orleans, for 12-room normal-school

building; ordinary construction; cost \$53,000; bids not advertised; will let general contract. Address Charles Kennedy, City Comptroller. (Previously noted.)

La., New Orleans.—City will call for new bids to erect school in rear of Fourteenth ward; cost about \$36,000; plans by E. A. Christy, New Orleans.

La., Tallulah.—Madison Parish School Board, C. M. Hughes, superintendent, will award contract July 13 to erect school building; three stories; 60x100 feet; ordinary construction; steam heat; electric lighting; cost \$17,500; plans by Stevens & Nelson, 1109 Hennen Bldg., New Orleans, La. (Recently noted to receive bids.)

Md., Brunswick.—City is having plans prepared by A. Cookman Leach, 323 N. Charles St., Baltimore, Md., for high-school building; two stories; eight classrooms; brick.

Miss., Bay St. Louis.—City will issue \$50,000 worth of bonds for street improvements and purchase site and erection of school; R. B. Perkins, J. F. Cazeneuve and others, commission.

Miss., Brookhaven.—T. B. Lampton, Magnolia, Miss., may be addressed relative to erection of building for Whitworth College to cost \$40,000. (Recently noted.)

Miss., Hattiesburg.—Board of Trustees Mississippi Normal College, T. P. Scott, secretary building committee, Meridian, Miss., will probably open bids July 15 to erect administration and academic building, two dormitories and president's home; fireproof; electric lighting; total cost of buildings \$200,000; plans by R. H. Hunt, Chattanooga, Tenn. Address Mr. Scott. (Lately noted.)

Miss., Oxford.—Graded school trustees plan to erect annex to school; cost \$4500.

Miss., Tutwiler.—Mayor and Board of Aldermen will receive bids until 7 P. M. July 4 to erect brick school; certified check for \$200; plans and specifications at office of Town Clerk at Tutwiler or of M. M. Alsop, architect, Houston, Miss., or expressed by architect on receipt of certified check. (Recently noted.)

Mo., Excelsior Springs.—Board of Education will erect proposed high-school building; plans by J. H. Felt & Co., Kansas City, Mo.

Mo., Kansas City.—Mrs. Louise Rieger will erect music school, consisting of studios and auditorium; latter 40x85 feet, with inclined floor; stage 30x40 feet; seating capacity of 500; small balcony and two boxes.

Mo., St. Louis.—Church of the Nativity, Rev. J. C. Granville, pastor, will, it is reported, erect school.

Mo., St. Louis.—Board of Education will expend \$20,000 for improvements to school at 4130-14 Evans Ave.

Mo Webb City.—City voted \$20,000 bond issue to complete and furnish high-school building and improving Webster school. Address The Mayor. (Recently noted.)

N. C., Raleigh.—Bids received by president of North Carolina College of Agriculture and Mechanical Arts until 12.15 P. M. June 27 to erect new building; plans and specifications at office of H. P. S. Keller, architect, Tucker Bldg., Raleigh.

N. C., Raleigh.—Bids received by Agricultural and Mechanical College until June 27 to erect animal husbandry building; plans by C. E. Hartge, Raleigh.

N. C., Warsaw.—City rejected bids to erect school and will open new bids July 7; plans by B. H. Stephens, Wilmington, N. C. (Lately noted.)

N. C., Greensboro.—City will sell \$30,000 of bonds, previously voted, and will erect proposed schools. Address Mayor Murphy.

Okla., Chickasha.—State Industrial School and College for Girls has asked for additional appropriation of \$100,000 to erect girls' dormitory.

Okla., Guthrie.—Tri-State (Oklahoma, Texas and New Mexico) University plans are progressing; building operations to be commenced soon; Rev. C. R. Robinson, Tulsa, Okla., chairman of board. (Contracts recently noted awarded for erection of \$50,000 buildings.)

Okla., Miami.—City will erect three schools and receive bids for erection and equipment until July 1. Address The Mayor.

Okla., Muskogee.—State Woman's Methodist College will expend about \$500,000 to erect proposed college instead of \$300,000 as previously planned; Rev. O. E. Goddard, financial agent of Southern Methodist Church in Oklahoma.

Okla., Norman.—State University, J. C. Monnett, dean, will expend \$100,000 to erect law school; Shepley, Rutan & Coolidge, official architects of university, recently noted as preparing preliminary plans.

Okla., Oklahoma City.—School Board en-

gaged Layton & Smith, Oklahoma City, to prepare plans for proposed improvements provided for in bond issue. (Previously noted to have voted \$25,000 of bonds.)

Okl., Oklahoma City.—Musical Institute, incorporated with \$10,000 capital stock, will erect building. Frank H. Schreiner of Chicago is interested.

Okl., Oklahoma City.—Board of Education is having plans and specifications prepared for school buildings to cost \$235,000; G. A. Elbow, secretary Board of Education. (Bond issue of \$235,000 recently noted voted.)

S. C., Ehrhardt.—Ehrhardt School District No. 22 will vote July 5 on \$10,000 bond issue to erect school; R. W. D. Rowell, S. G. Mayfield, J. H. A. Carter, members of County Board of Education, Bamberg, S. C.

S. C., Pinopolis.—Building committee of Pinopolis Academy will receive bids until 10 A. M. July 15 to erect school building; plans and specifications at Sheriff's office at Courthouse at Monck's Corner; J. Calhoun Cain, chairman of building committee.

Tenn., Alexandria.—City will erect school; O. P. Barry, chairman of committee.

Tenn., Knoxville.—City did not award contract to S. M. Beaumont Company for \$40,000 school. (Recent report incorrect.)

Tenn., Mt. Pleasant.—City plans to expend \$10,000 to \$15,000 for improvements of Hay Long school; D. W. Shoffner, chairman of committee.

Tenn., Mt. Pleasant.—Board of Education, C. W. Johnson, superintendent, has not set date of opening bids to erect addition to school; lately noted; 40x70 feet; hot-water or steam heating; cost \$8000. (See "Machinery Wanted.")

Tenn., Nashville.—City will expend \$15,000 to remodel school on Peabody Campus; cost \$15,000.

Tex., Alice.—Trustees of Alice Independent school district will receive bids until noon July 15 to erect four-room brick addition to high-school building according to plans and specifications by W. B. Corwin on file at office of P. S. Anderson, secretary of board at Alice, or may be had on deposit of \$10.

Tex., Beaumont.—City will probably vote on \$25,000 bond issue to erect school. Address The Mayor.

Tex., Brenham.—School Board plans to erect school to cost \$6000 to \$7000.

Tex., Corpus Christi.—Corpus Christi Independent school district will vote July 18 on \$50,000 bond issue for school improvements. Address district school trustees.

Tex., Dublin.—School Board of Dublin Independent School District accepted plans to remodel and erect addition to high-school building to cost at least \$10,000; district will also vote August 5 on \$45,000 bond issue to erect high-school building to replace present structure.

Tex., Kurton.—School Trustees are receiving bids to erect proposed school.

Tex., Ledbetter.—City plans election in July to vote on bond issue to erect school to replace structure previously burned. Address The Mayor.

Tex., Mathis.—School Board, E. C. Timen, secretary, will erect school; two stories; brick.

Tex., Waxahachie.—City adopted plans for two ward schools; one two stories high, with six rooms and auditorium; other, one story, with three rooms; brick construction. (Recently noted.)

Va., Keysville.—City will vote on \$10,000 bonds to erect high-school building; H. D. Peters, Mayor.

Va., Norfolk.—Finance committee of City Council approved appropriation of \$32,500 to erect negro school in Berkley Ward.

Va., Richmond.—School Board, C. P. Walford, clerk and supervisor, city hall, will receive bids until 6 P. M. July 17 to erect two schools as follows: 1 (a) For erection of brick and concrete school at Cedar and Buchanan Sts.; (b) furnishing and installing heating and ventilating systems in same; 2 (a) erection of brick, steel and concrete school at Madison and Cary Sts.; (b) furnishing and installing heating and ventilating systems in same; certified check for \$500 with bids for each building, and certified check for \$200 with bids for heating and ventilating systems in each structure; plans and detailed information from C. M. Robinson, architect, Mutual Bldg., Richmond.

Va., Williamsburg.—William & Mary College will expend \$30,000 for proposed improvements to college.

Va., Salem.—Salem District No. 5 of Roanoke county will vote July 18 on \$17,000 bond issue to erect school; Charles D. Denit, County Clerk.

W. Va., Grafton.—Board of Education is

reported to receive bids until July 1 through W. W. Watkins, secretary, to erect school; two stories; 60x32 feet; cost about \$17,500; plans by S. W. Ford, Williams Bldg., Clarksburg, W. Va. (Recently noted.)

W. Va., Warwood.—Board of Education of Richland district, Ohio county, will receive bids until noon July 6 to erect two-room addition to Loveland school and two-room addition to Warwood school; separate bids for metal ceilings; certified check for \$100 with each bid; plans and specifications at office of George H. Dieringer, architect, 2239 Eoff St.; Klives Apartments, Wheeling, W. Va., and G. S. Ebberts, president of board at Loveland; Harry F. Robinson, clerk.

STORES

Ala., Bessemer.—Sloss-Sheffield Steel & Iron Co., Birmingham, Ala., will rebuild commissary reported burned at loss of \$10,000.

Ark., Little Rock.—John Baldrige will erect store building; two stories; brick; cost \$3500.

Ark., Little Rock.—Jacob Blass, 4th and Main Sts., will erect business building at 8th and Main Sts.; three stories; brick; 140x35 feet; front and side of plate glass and pressed brick and stone construction.

D. C., Washington.—George F. Miller Company of Baltimore is reported to have purchased two buildings at 482-486 Louisiana Ave. N. W.; is having plans prepared by B. Stanley Simmons, 1301 G St. N. W., for remodeling and converting into one building.

Fla., Bradentown.—W. Harney Tillis will erect commercial building; two stories.

Fla., Jacksonville.—Mrs. Annie Franks will erect business building; two stories; brick; 50x85 feet.

Fla., Jacksonville.—J. H. Tucker, Jr., will erect store building; one story; brick; 60x97 feet.

Fla., Miami.—George Mangors is erecting proposed store and apartment-house; plans by Geo. L. Pfeiffer, Lemon City, Fla. (See "Apartment-Houses.")

Fla., St. Petersburg.—E. B. Rowland will erect store building; 43x65 feet; three stories; plate-glass fronts; electric lights; white-brick front.

Ga., Augusta.—George R. Lombard will erect two store buildings; brick construction.

Ga., Dalton.—Smith-Hall Company will erect business building.

Ga., Sandersville.—Henry Parls will open bids about July 1 to rebuild store; 25x128 feet; fireproof construction; cost \$10,000; plans by Frank R. Happ, Macon, Ga. (Recently noted burned.)

Ga., Waycross.—Watt Hardware Co. will erect addition to store building; three and two stories.

Ga., Waycross.—Mrs. M. M. Crawley will erect business building; three stories; concrete.

Ky., Louisville.—Imperial Realty Co. is reported to erect apartment-house and several store buildings.

Ky., Louisville.—Banner Building Co. will erect addition to building at 318 E. Broadway; two stories; brick; cost \$10,000.

La., New Orleans.—Leon Fellman, Canal and Carondelet Sts., will award contract July 1 to erect store building; 37x130 feet; five stories and basement; fireproof construction; concrete and steel; cost \$50,000 to \$60,000; plans by Emile Well, 1312 Whitney Bldg., New Orleans; contractors estimating are George J. Glover, Julius Koch, Jefferson Construction Co. and James Geary, all of New Orleans. (Recently noted.)

Mo., Kansas City.—Mrs. Maud Dinan will erect store and apartment-house; brick; cost \$7000.

Mo., Kansas City.—Kansas City Breweries Co. will erect store building; cost \$3000.

Mo., Kansas City.—T. Schleicher will erect store building; brick; cost \$3000.

Mo., St. Louis.—Benjamin Franklin Realty Co. will erect four-story store and loft building; ordinary construction; two or three stories on ground floor; upper floor for light manufacturing; cost \$50,000; plans by Will Levy, St. Louis.

Mo., St. Louis.—Anderson Realty & Building Co. will erect mercantile building; three stories; cost \$11,600.

N. C., Ahoskie.—D. P. Baker & Co. will erect brick store lately noted; will purchase all material for same; also for eight buildings now in course of construction. (See "Machinery Wanted.")

N. C., Raleigh.—Jones & Bailey will, it is reported, erect two business buildings.

N. C., Salisbury.—A. D. Hartman will erect block of store and apartment buildings; two

stories; lower floor for stores; upper floors for apartments.

Okl., Tulsa.—P. M. Wall will erect business building; one story; brick.

S. C., North.—W. A. Johnson will erect store buildings; 100 feet long; construction begun.

S. C., North.—T. A. Jones will erect store, office and lodge building; two stories; brick.

Tenn., Nashville.—Asmus & Norton, architects, Nashville, prepared plans for business building to replace structure previously burned and occupied by J. H. Fall & Co.

Tex., Alvin.—S. M. Ashby of Austin, Tex., will erect business building; two stories; brick.

Tex., Beaumont.—Josephine Goodhue will rebuild store and office building; five to eight stories; fireproof construction; probably reinforced concrete; steam heat; electric lighting; cement sidewalks; electric freight and passenger elevator; cost \$150,000 to \$200,000; architect not selected. (Recently noted burned.)

Tex., Beaumont.—Dunlap Drug Co. will repair store damaged by fire. (Recently reported burned.)

Tex., Bastrop.—L. R. Erhard will remodel building and install new front.

Tex., Fort Worth.—N. H. Lassiter will erect business building; two stories.

Tex., Madisonville.—W. A. Yarbrough will erect business building; one story; brick.

Tex., Pecos.—Pecos Land Co. will erect business building; two stories; brick; construction begun.

Va., Richmond.—E. T. Frost and D. J. Halloran are having plans prepared by M. C. West, 44 Merchants' National Bank Bldg., Manchester, Va., to erect store and apartment. (See "Apartment-houses.")

Va., Richmond.—E. L. Frost and D. J. Halloran will erect three store buildings; two stories; brick.

W. Va., Bluefield.—Dr. G. T. Eplings will remodel buildings on Bluefield Ave. and Pearl St.

W. Va., Martinsburg.—C. C. Keedy will erect business block and residence; 31½x79 feet; brick.

W. Va., Weirton.—Bank of Weirton, E. T. Weir, director, will erect store and bank. (See "Bank and Office Buildings.")

THEATERS

Ala., Huntsville.—L. C. Sugg will erect theater; construction begun.

Fla., Bradentown.—Harry Wadham will erect moving-picture theater and apartment-house building.

La., New Orleans.—Mrs. August Bohn has plans by De Buys, Churchill & Labouisse, 817 Hibernia Bank Bldg., New Orleans, and will award contract about July 1 to remodel building at 814 Canal St. for motion-picture theater; 29x139 feet; mill construction; cost \$12,000. Address architect.

Okl., Oklahoma City.—Hathaway Harper awarded contract to L. F. Lee, Oklahoma City, for improvements to Metropolitan Theater, including hanging balcony to seat at least 200.

Tenn., Nashville.—Crescent Amusement Co., recently reported incorporated with \$40,000 capital stock, will erect moving-picture theater; 25x150 feet; electric lighting; cost \$5000.

Va., Petersburg.—Petersburg Theater Co. incorporated with \$15,000 capital stock; M. L. Hoffelmer, president, Richmond, Va.; P. Myer, vice-president; H. S. Bloombery, secretary-treasurer, Richmond.

BUILDING CONTRACTS AWARDED

APARTMENT-HOUSES

Fla., Jacksonville.—James B. Bours awarded contract to J. C. Halsema, Jacksonville, to erect store and apartment-house. (See "Stores.")

Tenn., Memphis.—Harry Hart of Winona, Miss., awarded contract to erect apartment-house; three stories; cost \$35,000.

Tenn., Nashville.—L. B. Fite awarded contract to C. C. Carter, Nashville, to erect apartment-house; two stories; brick veneer; hot-air furnace; cost \$5000.

Va., Roanoke.—Jefferson Building Co. awarded contract to J. F. Barbour & Co., Roanoke, to erect apartment-house; six stories; brick and concrete; cost \$50,000.

BANK AND OFFICE

D. C., Washington.—Union Savings Bank awarded contract to F. T. Nesbit & Co., New

WAREHOUSES

Ala., Ashford.—W. H. Herrington will erect cotton warehouse.

Ala., Mobile.—Mobile & Ohio Railroad, R. V. Taylor, general manager, will build pier and double-story warehouse, with depressed tracks therein; 50,000 square feet of space on either floor; heavy-framed mill construction; first floor of concrete. (See "Miscellaneous Construction.")

Ala., Talladega.—Talladega Warehouse & Storage Co. incorporated with \$4000 capital stock by J. A. Lewis, J. K. Dixon and others.

Ga., Atlanta.—Pittsburg (Pa.) Plate Glass Co. will erect distributing quarters and offices; four stories and basement; 80x150 feet; 120 feet wide in rear; front covered with gun-metal colored mission brick and faced with plate-glass windows; basement to contain 150-horse-power power plant for lighting building and operating all machinery in both buildings.

Ga., Milledgeville.—Samuel Evans, Sons & Co. will erect warehouse; construction begun.

Ky., Mayesville.—Standard Oil Co., 26 Broadway, New York, will erect building; Harry C. Curran, local manager.

Ky., Owensboro.—Owensboro Warehouse Co. incorporated with \$10,000 capital stock.

Md., Baltimore.—Standard Oil Co., 26 Broadway, New York, has plans by Haskell & Barnes, 407 Wilson Bldg., Baltimore, for warehouse at Canton; brick and concrete; two stories; contractors estimating are J. J. Walsh, 1533 Maryland Ave.; B. F. Bennett Building Co., 123 S. Howard St.; William Ferguson & Bro., 214 Clay St.; Morrow Bros., 218 E. Saratoga St.; Walter E. Burnham, Law Bldg., and J. Henry Miller, 108 Dover St., all of Baltimore; bids opened July 5. (Recently noted.)

Md., Baltimore.—James Carey, Jr., 538 Park Ave., will erect warehouse and office building; steam heat; electric elevator; to be occupied by Armstrong Cork Co., 7 N. Howard St., Baltimore.

N. C., Durham.—James R. Green of Winston-Salem, N. C., will erect warehouse with capacity for several thousand hogheads of tobacco.

N. C., Shelby.—Cleveland County Farmers' Union will erect warehouse on Seaboard Air Line Railway for storage and mixing fertilizer; 20x40 feet; two stories; J. C. Beam, George Allen, Sylvanus Gardner and others, building committee.

Tenn., Memphis.—Mississippi Realty Co., composed of R. L. Jones of Memphis, R. H. Hitt and Henry Hart, both of Winona, Miss., will erect series of warehouses.

Tenn., Memphis.—Memphis Warehouse Co. has, it is reported, completed plans to build 45 reinforced concrete construction warehouses with storage; capacity of 1500 bales compressed cotton. (See "Cotton Compresses and Gins.")

Tex., Beaumont.—Emmett A. Fletcher, Mayor, will receive competitive plans and specifications until 10 A. M. July 18 for warehouse on city wharf at Main and Pearl Sts.; cost about \$11,000.

Va., Staunton.—Staunton Cooperage Co., Chester Goodall, president, will erect warehouse; 70x130 feet; 36,000 square feet floor space or storage capacity of from 20,000 to 25,000 barrels.

Va., Suffolk.—Martins & Sons, Petersburg, Va., will expend about \$5000 to erect peanut storage warehouse, lately noted; brick; 120x120 feet, 20-foot pitch; one story; plans not prepared. (Lately noted.)

York, to erect bank building; seven stories; marble and Bedford stone front; plans by Milburn, Helster & Co., Home Life Bldg., Washington. (Lately noted as erecting five additional stories to present building.)

Ga., Savannah.—Citizens' Bank awarded contract to Collins Bros. & Co., Savannah, Ga., to erect bank building.

La., New Orleans.—Progressive Union awarded contract to H. H. Hill, New Orleans, for additions and alterations to office building; plans by Diboll, Owens & Goldstein, New Orleans. (Previously noted.)

N. C., Ahoskie.—J. W. Powell and J. T. Parker awarded contract to L. C. Blane, Suffolk, Va., to erect office and store building; 50x50 feet; two stories; cost \$6000. (Lately noted.)

Okl., Paden.—People's State Bank, R. C. Casey, president, awarded contract to J. B. Brock, Stillwater, Okla., to erect proposed

bank; 25x60 feet; brick; cost \$3000; construction begun.

Tenn., Jackson.—First National Bank awarded contract to E. G. Parish, Jackson, to erect bank building; 20x65 feet; fireproof; hot-water heating; electric lighting; cost \$20,000; plans by R. A. Heavener, Jackson. (Lately noted.)

Tex., Paducah.—Paducah State Bank awarded contract to erect bank building; will install water-works system in connection; awarded contract to Mr. Sneed for turnkey job; cost \$18,000 to \$20,000.

W. Va., Wheeling.—National Exchange Bank awarded contract to Edward C. Kreutzer, Wheeling, to construct front for bank building; granite; Doric type pillars 40 feet high; main entrance requiring about 15 carloads of white granite; plans by F. F. Paris, Wheeling.

CHURCHES

Ark., Benton.—Presbyterian Church awarded contract to J. W. Atkinson to erect edifice; brick; cost \$5000.

D. C., Washington.—First Church of Christ, Scientist, 15th and R Sts., awarded contract to Boyle-Robertson Construction Co., Union Trust Bldg., Washington, to erect edifice at Euclid and Champlain Sts. N. W.; white marble; brick and steel; cost about \$150,000; plans by Marsh & Peter, 520 13th St. N. W., Washington. (Recently noted.)

Fla., Miami.—Trinity Episcopal Church awarded contract to D. B. Walker, Miami, for concrete work on proposed edifice.

Fla., St. Petersburg.—Congregational Church, Rev. N. Matthews, pastor, awarded contract to J. Frank Chase, St. Petersburg, Fla., to erect edifice; cost \$20,000. (Recently described.)

Miss., Hattiesburg.—Trinity Episcopal Church, Rev. Simpson Atmore, rector, awarded contract to Oliver & Co., Hattiesburg, to erect proposed edifice; cost about \$6500.

Mo., Sikeston.—Methodist Episcopal Church South, Rev. J. M. Bradley, pastor, awarded contracts to erect edifice; 130x116 feet; cost \$40,000; contract for pipe organ not let. (Recently noted.)

S. C., Greenville.—First Presbyterian Church awarded contract to W. M. Jordan, Greenville, to erect addition to and repair church; 27x80 feet; cost \$16,000.

Tenn., Decherd.—Christian Church awarded contract to Mr. Taylor, Manchester, Tenn., to erect edifice; frame; 32x54 feet.

CITY AND COUNTY

Fla., Key West.—Jail.—Monroe County Commissioners released Edward Crittenden from contract to erect proposed jail, and work will be completed by Milton W. Curry and Benjamin Tynes, contractor's bondsmen.

Ga., Albany.—Jail.—Dougherty County Commissioners awarded contract to Pauly Jail Co., St. Louis, Mo., to erect jail; fireproof; cost \$20,000; plans by M. J. Reidy. (Lately noted.)

Ga., Atlanta.—Hospital.—Board of Trustees Grady Hospital, Dr. W. B. Summerall, Superintendent, will expend \$4500 to erect open-air ward in connection with hospital; lately noted; 46x87 feet; reinforced concrete and hollow tile; electric lighting; elevator and dumbwaiter; toilet-rooms; capacity of 40 beds; Donaldson & Pearson, contractor, Atlanta, Ga.; plans by King & Walker, New York.

N. C., Raeford.—Jail.—Hoke County Commissioners awarded contract to Central Carolina Construction Co., Greensboro, N. C., to erect jail and courthouse, and to Champion Iron Co., Kenton, O., for steel and iron work; plans by Milburn, Helster & Co., Home Life Bldg., Washington, D. C. (Lately noted.)

Tex., Austin.—Fire Hall.—City awarded contract at \$4225 to J. O. Polhemus, Austin, to erect second-story addition to fire hall; 40x80 feet; plans by C. H. Page & Bro., Austin. (Recently noted.)

Tex., San Antonio.—Jail.—Bexar county awarded contract to Young-Lilly Company (not Young-Byrne-Lilly Company, as recently stated), San Antonio, to erect county jail; three stories; 56x140 feet; fireproof construction; low-pressure gravity system of steam heat; three-wire alternating-current system of lighting; cost \$60,000; plans by Henry T. Phelps, Gunther Bldg., San Antonio.

COURTHOUSES

N. C., Raeford.—Hoke County Commissioners awarded contract to Central Carolina Construction Co., Greensboro, N. C., to erect courthouse and jail, and to Champion Iron Co., Kenton, O., for steel and iron work; plans by Milburn, Helster & Co., Home Life Bldg., Washington, D. C. (Lately noted.)

DWELLINGS

Ark., Little Rock.—L. B. Leigh awarded contract through F. W. Gibb & Co., architects, Little Rock, to J. A. Williams, Little Rock, to erect residence; two stories; nine rooms; cost \$6000.

Fla., Clearwater.—Methodist Episcopal church awarded contract to W. N. Reece, Clearwater, to erect parsonage; 37x32 feet; two stories; 10 rooms.

Fla., Clearwater.—J. J. Eldridge awarded contract to D. J. Dewar, Clearwater, to erect residence; nine rooms; two stories.

Fla., Fort Myers.—Dr. A. P. Hunter awarded contract to P. H. Sanders, Fort Myers, to erect \$4500 dwelling recently mentioned; plans by Guy Platt Johnson, Lakeland, Fla.; construction begun.

Md., Baltimore.—B. A. L. Keyes awarded contract to M. F. Kaylor, Plumico Blvd. and Rogers Ave., Baltimore, to erect residence; two and a half stories; frame; overhanging slate roof; 24x34 feet; hot-water heat; cost \$4000.

Md., Mt. Washington.—Clarence G. Bouls, North Ave., Mt. Washington, awarded contract to Israel Owings, Mt. Washington, to erect addition to and improve residence; cost about \$7000; plans by Owens & Sisco, 1605 Continental Bldg., Baltimore, Md. (Previously noted.)

Md., Overlea.—Charles O. Hossbach has plans by and awarded contract to John W. Nelson, Ridge Ave., Belgravia, postoffice at Haspelburg, Md., to erect residence on Overlea Ave.; two stories; slate roof; asbestos dormers and gables; walls of waterproof cement blocks; concrete porch floor.

Md., Roland Park.—Dr. I. H. Davis, 331 N. Charles St., Baltimore, Md., awarded contract to J. L. Robinson, 1325 Hollins St., Baltimore, to erect residence; two and a half stories; brick; 40x42 feet; stucco; steam heat; cost \$8800; plans by C. M. Anderson, 324 N. Charles St., Baltimore, Md.

Md., Roland Park.—Robert W. Smith, 225 E. German Ave., awarded contract to Roland Park Co., Roland Park, to erect dwelling; fireproof construction; hot-water heat; gas and electric lighting; cost \$18,000; plans by Elliott & Emmart, 1101 Union Trust Bldg., Baltimore, Md. (Recently noted.)

Mo., Kansas City.—R. S. Lipman will erect dwelling; brick; ordinary construction; cost \$12,000; plans by Clifton B. Sloan; contract awarded to C. Heinz.

Mo., Kansas City.—Dr. W. H. Shutz awarded contract to Nicholas Miller, Kansas City, to erect dwelling and garage; dwelling two stories; tapestry brick; tile roof; stone trimmings; hot-water heat; electric lighting; cost \$25,500; garage, brick and stucco; cost \$2000; plans by Wilder & Wythe, Kansas City. (Recently noted.)

Mo., St. Louis.—Eugene Hauck awarded contract to M. Eysall Construction Co., St. Louis, to erect dwelling; two stories; 44x63 feet; cost \$23,000; plans by E. Jensen, St. Louis.

N. C., Charlotte.—R. L. Owen awarded contract to S. L. Vaughan, Charlotte, to erect bungalow.

N. C., Charlotte.—Union Realty Co. awarded contract to S. L. Vaughan, Charlotte, to erect residence.

Tenn., Chattanooga.—Huntington & Sears, architects, James Bldg., awarded contract to D. F. Brandon, Chamberlain Bldg., Chattanooga, to erect dwelling; 12 rooms; two stories; brick; composition roof; cabinet mantels; hot-air heat; gas and electric lighting; contract price \$3722.

Tenn., Chattanooga.—J. Milton Brown, 8th and Cherry Sts., awarded contract to John E. Davis to erect dwelling on Bailey Ave. near Kelly St.; five rooms; frame; cost \$2300.

Tenn., Knoxville.—Churchwell Mabry awarded contract to James Wilson, Knoxville, to erect residence; two stories; nine rooms; pebble-dash; colonial porch; plans by W. H. Gliddard, Knoxville.

Tex., McKinney.—J. Perry Burrus awarded contract for erection of residence; 10 rooms and basement; cost \$25,000.

Tex., San Antonio.—A. W. S. Garden awarded contract to erect dwelling; two stories and basement. (See "Schools.")

Va., Roanoke.—H. C. Elliott, 115 S. Jefferson St., awarded contract to Rhodes & Wade to construct two dwellings, lately noted; 25x35 feet; mill construction; cost \$2500 each; plans by H. M. Miller. Address contractors.

GOVERNMENT AND STATE

Tex., Terrell.—Postoffice.—Treasury Department, James Knox Taylor, supervising archi-

teet, Washington, D. C., awarded contract at \$42,500 to Fells & Ainsworth, Waco, Tex., to erect postoffice building; sandstone construction. (Previously noted.)

HOTELS

N. C., Raleigh.—Jones & Bailey awarded contract to J. J. Pierce & Son, Norfolk, Va., to erect hotel at Martin and Salisbury Sts.; seven stories; reinforced concrete; fireproof; walls on streets of pressed brick trimmed with granite and Indiana limestone; 54x110 feet; 75 rooms; cost, complete, about \$75,000.

N. C., Raleigh.—Jones & Bailey awarded contract to J. H. Pierce & Son, Norfolk, to erect hotel; seven stories; seventh story to be used as roof garden; 75 rooms; 54x100 feet; Indiana limestone; pressed brick; granite trimmings; cost \$50,000; plumbing and other equipment to cost \$25,000. (Previously noted.)

Tex., Fort Worth.—W. B. Ward, Jr., will expend \$20,000 to erect hotel and garage; 50x200 feet; brick and frame; Buchanan & Glider, Fort Worth, contractors. (Lately noted under "Stores.")

Tex., Wharton.—R. B. Huston closed contract with G. R. Pickard to erect third-story addition to Plaza Hotel.

MISCELLANEOUS

Md., Baltimore.—Hospital.—Johns Hopkins Hospital awarded contract, it is reported, to B. F. Bennett Building Co., 123 S. Howard St., Baltimore, to erect addition to administration building for superintendent's home; brick; three stories.

Md., Baltimore.—Baltimore City Protestant Episcopal Missionary Society awarded contract to McLaughlin Bros., 915 Bolton St., Baltimore, to erect parish-house at Clement and Towson Sts.; two stories; cost \$12,000.

N. C., Winston-Salem.—Garage and Bowling Alley.—Chatham & Eller awarded contract to Poindexter & Randeman to erect garage and bowling alley; one story and basement; brick; electric lighting; cost \$7500. (Lately noted.)

Tex., Fort Worth.—Garage.—W. B. Ward, Jr., will erect garage and hotel. (See "Hotels.")

Tex., Fort Worth.—Stock Barns.—Fort Worth Stockyards Co. awarded contract to James Stewart & Co., St. Louis, Mo., to erect stock barns to replace burned buildings; two 165x500 feet; one 122x510 feet; reinforced concrete construction; electric lighting; cost \$250,000; plans by Kilpstein & Rathmann, St. Louis, Mo. (Previously mentioned.)

SCHOOLS

Ala., Wetlowe.—Randolph County Commissioners awarded contract to Emil Zozel, Roanoke, Ala., to erect proposed high-school building; cost \$8300.

Ark., Humphrey.—Humphrey Special School District awarded contract to R. H. Furgerson, Humphrey, to erect school; two stories; brick; fireproof; cost \$10,400; plans by E. Cook & Co., Pine Bluff, Ark. (Lately noted as issuing \$10,000 of bonds.)

Ark., Stuttgart.—Directors of Stuttgart school district awarded contract at \$40,400 to E. Haines, Stuttgart, to erect high-school building; plans by Mitchell Selligman, Citizens' Bank Bldg., Pine Bluff, Ark. (Previously noted.)

D. C., Washington.—Gonzaga College, Rev. Eugene De L. Donnell, president, awarded contract to M. G. Lepley, 633 G St. N. W., Washington, to erect proposed college buildings; main building, 40x120 feet; chapel, 40x61 feet; fireproof; steam heating; press brick front; cost \$100,000; plans by Frank G. Pierson, Washington Loan & Trust Bldg., Washington. (Lately noted.)

Ga., Barnesville.—W. B. Smith awarded contract to Barnesville Planing Mill Co., Barnesville, to erect dormitory.

Ga., Dalton.—City awarded contract to Bina Young & Son, Sweetwater, Tenn., to erect school building; 63x119 feet; two stories; brick; galvanized cornice; gravel roof; heating and plumbing let separately; cost \$13,703; plans by Charles W. Canelton. (Recently noted.)

La., New Orleans.—Tulane University, R. M. Walmley, president of board of administrators, awarded contract to Geo. J. Glover, New Orleans, to erect proposed Stanley O. Thomas Memorial Bldg.; three stories; Romanesque style; fireproof; pressed brick; first floor for laboratories, second floor for classrooms, etc., and third floor for architectural, drawing and designing departments; cost about \$60,000; plans by Andry & Benderhage, New Orleans.

La., Natchitoches.—City awarded contract at \$12,600 to Caldwell Bros., Abbeville, La.,

to erect proposed school; two stories; brick.

Miss., Jackson.—Trustees of Public Schools awarded contract at \$38,900 to John F. Barnes, Jackson, to erect Central School building; Sidel pressed brick. (Recently noted.)

Mo., St. Louis.—Missouri School for Blind awarded contract at \$26,990 to Hill-O'Meara Construction Co., Syndicate Trust Bldg., St. Louis, to erect wing to school; four stories; brick.

N. C., Chadbourn.—Columbus County Board of Education awarded contract to P. H. Little, Conway, S. C., to erect school; cost \$15,000; plans by H. E. Bonitz, Wilmington, N. C.

Okla., Braden.—Braden School District awarded contract to J. Truschel, Fort Smith, Ark., to erect proposed school building; two stories; 40x40 feet; ordinary brick construction; stoves; plans by A. Klingingsmith, Fort Smith, Ark.

Okla., Kenefick.—City awarded contract to erect school; cost \$6000. Address The Mayor.

S. C., Spartanburg.—City awarded contract to Hertzog & Rulsall, Spartanburg, to erect school on Oakland Ave.

Tenn., Tullahoma.—Fitzgerald-Clarke School, Trenton, Tenn., awarded contract to Stegall & Taylor, Tullahoma, to erect gymnasium and swimming pool. (Recently noted.)

Tex., Bridgeport.—City awarded contract to Ernst Construction Co. to erect school; 60x108½ feet; three stories; ordinary construction; stove heating; cost \$20,000; plans by Glenn Bros., Wichita Falls, Tex. (Lately noted.)

Tex., Petty.—District School Trustees awarded contract at \$10,225 to Marshall & Keys, Blossom, Tex., to erect school; plans by Barry & Smith, Paris, Tex. (Recently noted.)

Tex., Petty.—Petty Independent School District Commissioners awarded contract to Marshall & Keys, Blossom, Tex., to erect school; brick; 70x80 feet; two stories; cost \$10,000; plans by Barry & Smith, Paris, Tex. (Lately noted.)

Tex., Portland.—Bay View College, T. M. Clark, president, awarded contract to T. C. Findley to erect college chapel and recitation-rooms lately noted; 40x50 feet; two stories; fireproof; acetylene lighting; cost \$4000; plans by Proctor & Forgy, Portland.

Tex., San Antonio.—Garden Academy and A. W. S. Garden awarded contract to R. S. Cobb and McCoy & Myers to erect one-story school building and two-story-and-basement dwelling; ordinary construction; hot-water heat; electric lighting; cost \$10,000; plans by Alfred Giles. (Recently noted to erect school.)

Tex., Saratoga.—School Trustees awarded contract to erect proposed school to cost about \$10,000.

Tex., Weir.—City awarded contract to erect school; brick construction; cost \$7500. Address The Mayor. (Previously noted.)

Va., Danville.—School trustees awarded contract at \$5697.81 to Danville Plumbing & Heating Co., Danville, for heating equipment at Robert E. Lee School. (Previously noted.)

STORES

Ala., Birmingham.—James and J. J. Toole, 13 N. Perry St., Montgomery, Ala., awarded contract to Hughes Bros., Montgomery, Ala., to erect two store and warehouse buildings; 25x140 feet and 34x84 feet; three stories; construction begun. (Lately noted.)

Ark., Forrest City.—Becker & Lewis awarded contract to W. Brewer, Forrest City, to erect store building; 22x132 feet; ordinary construction; cost \$8000; plans by Weathers & Foley, Memphis, Tenn.

Ark., Little Rock.—Snodgrass & Bracy awarded contract to S. M. Apple, Little Rock, to remodel store, installing new front and interior decorations.

Ark., Marianna.—Mrs. A. J. Elder awarded contract to erect three store buildings; brick.

D. C., Washington.—S. W. Woodward awarded contract to Samuel Edmonston, 611 G St. N. W., Washington, to erect three store buildings on G St.; pressed brick; terra-cotta fronts; plans by Milburn, Helster & Co., Home Life Bldg., Washington.

Fla., Jacksonville.—James B. Bours awarded contract to J. C. Halsema, Jacksonville, to erect store and apartment building; two stories; brick; lower floors for stores; upper floor for apartments.

Ga., Waycross.—Watt Hardware Co. awarded contract to erect three-story addition and extension to business building, affording 6000 additional feet of floor space.

Ga., Waycross.—Mrs. M. M. Crawley award-

ed contract to Park Morrand, Waycross, to erect business building; three stories; concrete.

N. C., Ahsokie.—J. W. Powell and J. T. Parker awarded contract to L. C. Bane, Suffolk, Va., to erect store and office building; 50x80 feet; two stories; cost \$6300.

N. C., Winston-Salem.—Boyles Bros. Company awarded contract to erect store building; two stories; 44x90 feet.

S. C., Pelham.—J. M. Davis, R. F. D. No. 5, Greer, S. C., will expend \$15,000 on store building lately noted; 30x60 feet; two stories; ordinary construction; Henry E. Rector, Greenville, S. C., contractor.

Tex., Mineral Wells.—A. L. Howard of Howard & White awarded contract to J. T. Moore, Mineral Wells, to erect business building; one story; stone; 45x100 feet.

Tex., Shiner.—D. G. Helmers awarded contract to erect business building; brick construction.

Tex., Shiner.—Charles Welhausen awarded contract to erect business building; brick construction.

Va., Roanoke.—H. C. Elliott, 1115 S. Jefferson St., awarded contract to Rhodes & Wade to erect store lately noted; 30x75 feet; brick and slate; electric lighting; cost \$4750; plans by H. M. Miller. Address contractors.

W. Va., Martinsburg.—E. F. Millard awarded contract to C. D. Burns, Martinsburg, to erect double extension to business building; 40 and 70 feet; brick; one and two stories.

W. Va., Wheeling.—W. J. Krumme awarded contract to Walters & Sims, Wheeling, to erect business building; one story.

WAREHOUSES

Ala., Birmingham.—James and J. J. Toole, 13 N. Perry St., Montgomery, Ala., awarded contract to Hughes Bros., Montgomery, Ala., to erect two warehouse and store buildings lately noted. (See "Stores.")

Ala., Mobile.—Mobile & Ohio Railroad Co., B. A. Wood, chief engineer, Mobile, awarded contract to E. J. Raub & Co. (not E. J. Raubco, as recently noted), 215 N. Royal St., Mobile, to erect warehouse; 80x80 feet; cost \$5000.

Fla., Jacksonville.—Charles Blum awarded contract to F. W. Long & Co. to erect warehouse; reinforced concrete; 60x90 feet; freight elevator; cost \$17,000; plans by Rutledge & Holmes. (Lately noted.)

Ky., Newport.—Bonded Warehouse Co. awarded contract to E. A. Curry, Hamilton, O., to erect proposed warehouse; 13 stories; 220x176 feet; mill construction; plans by J. R. Stevens, Cincinnati, O.

Md., Baltimore.—Charlotte T. Harrison awarded contract to Milton C. Davis, 15 E. Fayette St., Baltimore, to erect warehouse at 13 W. German St.; three stories; brick; 19.5x48.9½ feet; slag roof; copper cornice; steam heat; cost \$4350; plans by Mottu & White, 322 N. Charles St., Baltimore.

Md., Havre de Grace.—Bernhardt Levy awarded contract to Enoch M. Smith, Havre de Grace, to erect warehouse; brick; two stories; 40x50 feet; cost \$8000 to \$10,000.

Mo., St. Louis.—Columbia Transfer Co. awarded contract to Kellerman Construction Co., St. Louis, to erect warehouse; one story; 125x90 feet; cost \$15,000; plans by R. D. Weakly, St. Louis.

Public Service Commission for authority to increase its stock and bonds, each from \$500,000 to \$2,000,000, and proposes to extend from Brandywine, Md., to Bennings, D. C., about 17 miles, and from Mechanicsville, Md., to Cedar Point and Point Lookout, about 35 miles; also to rebuild the existing line from Brandywine to Mechanicsville, 21 miles. Henry W. Watson is president, Franklin Bank Bldg., Philadelphia, Pa.

Mo., Cape Girardeau.—The Cape Girardeau & Jackson Interurban Electric Railroad, says a dispatch, will probably be extended to Illinois, Edna, Chaffee, Jackson and other points. W. H. Harrison, president, has been authorized to make preliminary surveys and estimates.

Mo., Jefferson City.—The Rock Island system is reported considering a plan to build a branch about 17 miles long to Jefferson City. J. B. Berry is chief engineer at Chicago, Ill.

N. C., Asheville.—The Carolina Industries Co. is reported organized for developing various propositions, including railroads. Officers, S. Lipinsky, president; Archibald Nichols, first vice-president; W. P. Whittington, second vice-president; H. Taylor Rogers, treasurer; D. H. Harris, secretary; M. G. Rector, general counselor; Charles E. Waddill, electrical and civil engineer; Benjamin H. Case, civil and mining engineer, and E. O. Fitch, Jr., mechanical engineer.

N. C., Charlotte.—The Southern Railway, it is reported, will build a cut-off about two miles long near Charlotte. W. H. Wells is chief engineer of construction at Washington, D. C.

Okla., Alva.—A dispatch from Oklahoma City says that after a conference between H. A. Noah and M. M. Fulkerson of Alva, Okla., and F. Contemah of Paris, representing a French syndicate, and members of the State Corporation Commission, it was announced that the line proposed by Mr. Noah from Colorado coal fields through Kansas and Oklahoma to Joplin, Mo., with a branch from Alva to Oklahoma City, would be built under an Oklahoma charter; length 864 miles.

Okla., Bartlesville.—Reported that the Missouri, Kansas & Texas Railway is considering a plan to build a line from a point near Bartlesville to Pawhuska and thence to Enid, Okla., altogether about 100 miles. S. B. Fisher, St. Louis, Mo., is chief engineer.

Okla., Hobart.—Charter is reported granted to the Hobart, Cheyenne & Texas Panhandle Railroad Co. to build a line from Hobart, via Cheyenne, Okla., across the Texas Panhandle and into New Mexico 200 or 300 miles; capital \$6,000,000. W. L. Hoyt is superintendent.

Okla., Hammon.—The Texas & Oklahoma Construction Co., Wichita Falls, Tex., is contractor for the extension of the Wichita Falls & Northwestern Railway from Hammon to Woodward and Supply, Okla., 150 miles. All grading will be sublet to small contractors, 30 miles being let to date. Bridges and buildings will be erected by the construction company. Route is through rough country. J. A. Kemp is president; Frank Kell, vice-president and general manager, and R. A. Thompson, chief engineer. A report from St. Louis quotes President A. A. Allen of the Missouri, Kansas & Texas Railway as saying that it will co-operate with the Wichita Falls & Northwestern in building the extension.

Okla., Tulsa.—The Frisco system, says a dispatch, may build a cut-off 14 miles long from Tulsa to Mounds. F. G. Jonah is chief engineer of construction at St. Louis, Mo.

S. C., St. Matthews.—Reported that D. G. Zeigler of St. Matthews, S. C., and H. S. Harding of Boston, Mass., contemplate building an electric railway to connect Pregnall, Ellmore, St. Matthews and Gaston.

Tenn., La Follette.—The Kentucky Lumber Co. of Cincinnati, with mills at Burnside and Williamsburg, Ky., will, it is reported, build six miles of railroad from La Follette, Tenn., on the Louisville & Nashville Railroad, to timber lands recently bought.

Tenn., Jackson.—Mike Harvey, chief engineer, says that the Birmingham & Northwestern Railway has grading 20 per cent. completed; timbers for trestles being delivered on line; pile driving begins within a week; contract to be finished six months from April 1.

Tenn., Memphis.—The Memphis Warehouse Co., W. G. Turner, general manager, says a press report, will build 2¼ miles of railroad tracks in connection with enlargement.

Tenn., Memphis.—Dispatches from Chicago say that the Illinois Central Railroad has appropriated \$2,000,000 for improvements, part of which will doubtless be spent in the South; A. S. Baldwin is chief engineer at Chicago.

Tenn., Paris.—The Kentucky & Tennessee State Line Railroad Co. is reported chartered in this county to build from the Tennessee River to the Mississippi River, about 75 miles, closely following the State boundary; headquarters at Hazel, Ky., which is practically on the boundary; capital \$80,000; incorporators, J. N. Hill, W. T. Jackson, C. V. McCampbell, J. W. Williams and J. T. Turnbull.

Tex., Bovina.—Texas, Gulf & Northern Railway Co. of Kendrick county is reported chartered to build a line from a point near Bovina, on the Pecos & Northern Texas Railway, south through Bailey, Cochran, Yukon, Gaines, Andrews, Exton and Midland counties 175 miles to Midland, Tex., on the Texas & Pacific Railway. Directors, J. A. Underwood of Honey Grove, Tex.; J. D. Bedford, R. E. Underwood, Robert E. Davis, Mike C. Lemaster and J. M. Neeley of Amarillo, Tex., and J. F. Sadler of Weatherford, Tex.

Tex., Brownwood.—Brooke Smith, Lee Watson and W. F. Johnson, committee on the proposed railroad from Brownwood to May and Rising Star, are reported to have submitted a plan to Rising Star which it is believed will be accepted and the line built. Construction is expected to begin about August 1.

Tex., Del Rio.—An officer of the Kansas City, Mexico & Orient Railway denies the press report that it would build an extension to Galveston or Corpus Christi.

Tex., Denison.—Reported that the Missouri, Kansas & Texas Railway will build 15 additional tracks in Ray yards in West Denison; additional tracks will also be laid in the Dallas and Hillsboro yards, besides other improvements. A. M. Acheson is acting chief engineer at Dallas, Tex.

Tex., El Paso.—An officer of the El Paso & Southwestern Railway says that the company is surveying a line up the west side of the Rio Grande 40 miles to learn cost of construction, but there are no plans for building now.

Tex., Fredericksburg.—Reported that \$100,000 has been subscribed and contract will be closed July 1 with J. P. Nelson to build the proposed railroad from Fredericksburg to Waring, Tex., on the San Antonio & Aransas Pass Railway, 25 miles; construction to begin next month.

Tex., Glen Rose.—J. H. Farr, president of the Glen Rose & Walnut Springs Railway, 14 miles long, is reported saying that grading for a line from Glen Rose to Fort Worth, about 40 miles, will begin by January next. Eastern capital is said to be interested.

Tex., Stone City.—An officer of the Houston & Texas Central Railroad (Southern Pacific system) says that the contemplated line from Stone City will be 40 miles long to either Lincoln or Giddings, Tex. Date for bids not fixed, but bridge contracts are let. E. B. Cushing, Houston, Tex., is chief engineer of construction.

Tex., Waxahachie.—Edward T. Moore of Dallas, Tex., is quoted saying that the Stone & Webster interests, which will build an interurban electric railway from Dallas to Waxahachie, are also surveying for an extension from Waxahachie to Ennis, Tex.

Va., Abingdon.—Reported that survey has begun for an extension of the Virginia-Carolina Railway from Green Cove, Va., to Wilkesboro, N. C., about 50 miles. Wilton E. Mingea is president at Abingdon, Va. W. E. Mingea, Jr., is reported saying that financial arrangements have been made and the extension will be via Jefferson, N. C.

Va., Norton.—An officer of the Norfolk & Western Railway is quoted in a dispatch from Roanoke as denying a report that the company contemplated building a line from Norton to a point in the vicinity of the Consolidation Coal Co.'s developments in Kentucky.

W. Va., Clarksburg.—A dispatch says that the Clarksburg & Northern Railway Co., T. Moore Jackson, president, has let contract to Joseph Fucy for construction of its proposed line between Clarksburg, Middlebourne and New Martinsville. Isaac M. Underwood is also interested.

W. Va., Fairmont.—The Fairmont & Pittsburgh Railway, says a dispatch, has secured all rights of way for its proposed line from Waynesburg to Pittsburgh, 80 miles. Line is completed from Fairmont to Blacksville, W. Va., and construction under way from Blacksville to Waynesburg, Pa. Among those reported interested are John T. McGraw of Grafton, and Joseph H. McDermott or Morgantown, W. Va.; George L. Potter of Baltimore, Md., and J. G. Simpson of Waynesburg, Pa., the latter being engineer.

W. Va., Morgantown.—The National Power Co., it is reported, will build an electric

RAILROAD CONSTRUCTION

RAILWAYS

Ala., Jasper.—An officer of the Alabama Central Railroad denies the late report that contract was let to W. E. Hall of Jasper for an extension to a point east of Manchester, Ala. No new work is being done.

Ala., Red Bay.—The Tennessee & Tombigbee Railroad Co., says a dispatch, is incorporated at Russellville, Ala.; headquarters at Red Bay. Line proposed is from Red Bay to Guntersville, through Parkwood, Newburgh, Mount Hope and Moulton. Incorporators, A. J. Hackett of Red Bay, president; E. A. Smith, also of Red Bay; W. F. Wallace and M. Z. Bynum of Corinth; the Foster-Creighton-Gould Company of Nashville, Tenn., and Rockwood, Ala.; W. A. Orman, R. L. Bomen, Travis Williams and W. H. Shorns of Russellville, Ala.; E. G. Bolling, O. O. Wade, G. W. Shaw and B. C. Paulk of Red Bay, and J. C. Williams of Atwood, Ala. Expected that construction will begin between Red Bay and Rockwood, 25 miles, before August 15.

Ark., De Queen.—A dispatch says Herman Dierks, vice-president and general manager De Queen & Eastern Railroad, announces the line will be extended from Dierks to Hot Springs, Ark., about 40 miles.

Ark., McCrory.—An officer says that the McCrory & Beedeville Southern Railway will build 16 miles of line from Jelks Junction to Beedeville, Ark., via McCrory. Bridges are all lumber or pile; route level; contractor, G. G. McCrory. At present four miles are built, two miles are under construction, and the company will vote \$50,000 of construction bonds immediately. Clayton Halley is president; E. L. Hamilton, vice-president; R. B. Keating, secretary and treasurer, and G. G. McCrory, chief engineer.

Ark., Stuttgart.—The Central Arkansas & Eastern Railway is reported to have completed its line from Stuttgart to Hazen, Ark., making a road 27 miles long. The St. Louis Southwestern, it is said, will operate it.

Ark., Waldron.—Reported that the Kansas City Southern Railroad Co. contemplates extending its line from Waldron to Hot Springs, Ark., about 70 miles. C. E. Johnston is chief engineer at Kansas City, Mo.

D. C., Washington.—The Baltimore & Washington Transit Co. has applied to the Public Service Commission of Maryland for authority to issue \$50,000 of 5 per cent. second mortgage bonds. It has been contemplated to build an extension to Sandy Spring, Md., 14 miles. Wm. A. Mellen of Washington, D. C., is president; Henry W. Williams, vice-president, and George J. Schedel, secretary and treasurer, both of Baltimore, Md.; offices at Washington.

Fla., Daytona.—Concerning the proposition to build a railroad from Daytona to Deland, one of the parties interested says that some matters remain to be settled and details cannot now be given.

Fla., Dowling Park.—An official of the Live Oak, Perry & Gulf Railroad says that the company is not now in position to give information about its proposed extension, which, it is reported, will go to St. Marks, Fla.

Fla., Miami.—James R. Reid of Miami, it is reported, will build an electric railway about 10 miles long from Coconut Grove via Miami to Lemon City.

Ga., Augusta.—The Southern Railway is reported surveying to revise curves and grades on the Augusta Southern Railroad. W. H. Wells is chief engineer of construction at Washington, D. C.

Ga., Carnesville.—The Northeast Georgia Construction Co. is reported to have let contract to Miller & Phillips of Greenville, S. C., for grading and track-laying on the first five miles of the Carnesville Railway, work to begin by July 1. E. P. Simpson, W. S. Edwin and W. P. King were appointed a committee to sell \$150,000 of bonds.

Ga., Haley Dale.—One of the organizers says that a company has been formed, as reported, to build a railroad 25 or 30 miles long from Millen to Newington, Ga., via Woodcliff and Capittola along a nearly level route; date not fixed for letting contract; two small bridges required; officers, W. M. Biltch, chairman of the board, Haley Dale, Ga.; E. S. Lane, president, Biltch, Ga.; I. H. Evans, vice-president, Haley Dale; A. S. Anderson, secretary and treasurer.

Ga., Waycross.—Plans are reported to build a railroad from Waycross, Ga., to Dothan, Ala., about 200 miles, and among those mentioned as interested are C. C. Beck of Brooks county, Georgia, of which Quitman is the county-seat; W. W. Webb and J. W. Stanfield of Hahira, Ga., which is in Lowndes county, adjoining, and J. E. T. Bowden of Waycross, Ga. Among the places to be reached en route are Barney, Meigs, Colquitt, Cedar Springs and Gordon.

La., New Orleans.—An officer of the Illinois Central Railroad says that the company at this time does not contemplate further improvements at the Poydras terminals in New Orleans. This relates to a recent rumor.

La., New Orleans.—An officer of the Louisville & Nashville Railroad confirms report that the company will elevate and strengthen its roadbed between New Orleans and Mobile by saying that it is now engaged in widening and raising to some extent the roadbed on the west end of the New Orleans division.

Md., Baltimore.—J. A. Hart Company, 256 Broadway, New York, has been given contract for grading and masonry on extension of Baltimore & Ohio Railroad's classification yard at Curtis Bay, near Baltimore. Same firm has also concrete and masonry work on extension of third track from Green Spring to Patterson Creek, near Cumberland, Md. F. L. Stuart, Baltimore, is chief engineer.

Md., Brandywine.—The Washington, Potomac & Chesapeake Railway has applied to the

railway from Port Marion, Pa., up Cheat River Valley into West Virginia, a distance of several miles. Charter just granted in the latter State. Incorporators, F. B. Parrott, W. B. Beecher, E. J. Cole, W. H. Young and S. B. Kelley, all of Pittsburgh, Pa.

W. Va., Wheeling.—Alfred M. Schenk of Wheeling, It is reported, is promoting plans to build an electric railway to connect Wheeling and Parkersburg, W. Va., touching numerous other points en route.

STREET RAILWAYS

Ala., Tuscaloosa.—F. G. Blair and H. B. Foster are reported asking for an electric-railway franchise in Tuscaloosa.

Ark., Fort Smith.—J. W. Gillette, general manager Fort Smith Light & Traction Co., is quoted saying that more than \$200,000 will be spent for improvements.

La., New Orleans.—Official announcement is made that at noon July 10 Charles R. Kennedy, Comptroller, will sell at auction franchise for a street railway on Newton St. from Teche St. to Pacific Ave.; on Elmira Ave. from Newton St. to Opelousas Ave., and on Opelousas Ave. from Elmira Ave. to Pacific Ave.

S. C., Rock Hill.—J. M. Cherry and asso-

ciates, according to a dispatch, have asked the Chamber of Commerce to endorse its request for a trolley franchise in Rock Hill.

Tenn., Chattanooga.—An ordinance is in course of passage through the Council to authorize the Chattanooga Railway & Light Co. to build a line along Highland Park and Vance Aves. to Highland Park, the county being asked for a franchise also on Dodds Ave.

Tex., Amarillo.—The Amarillo Traction Co., capital \$24,000, has been chartered by Mark Logan, W. W. Lynch and N. A. Brown.

Tex., Fort Worth.—The Northern Texas Traction Co. has been granted franchise to extend the University line two blocks and the Summit Ave. line from Fairmount Ave. and Jessamine St. south on Willing Ave. to the Elizabeth St. boulevard.

Va., Danville.—The Danville Traction & Power Co. is reported organized to take over the Danville Railway & Electric Co. Improvements and extensions may be made. Directors, John F. Rison, president; J. R. Jopling, vice-president; William Leigh, J. I. Pritchett, J. P. Swanson, J. L. Penn, R. A. James, C. G. Holland and G. G. Temple. II. S. Lanier is secretary-treasurer; N. W. Berkeley, superintendent, and William H. Leigh, counsel.

MACHINERY, PROPOSALS AND SUPPLIES WANTED

Manufacturers and others in need of machinery or supplies of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery or supplies needed we will make their wants known free of cost, and in this way secure the attention of manufacturers and dealers throughout the country. The Manufacturers Record has received during the week the following particulars as to machinery and supplies wanted.

Bank Fixtures.—See "Safe, etc."

Boiler.—Box 559, Cincinnati, O., wants second-hand portable boiler; locomotive type; 125 pounds pressure; 150 horse-power. Give full description and lowest dealers' price.

Boilers.—Sealed proposals will be received by Water-works and Sewerage Board, Clarksburg, W. Va., at office of secretary, Scott C. Highland, until 12 noon July 24 for furnishing and erecting two 200-horse-power water-tube boilers complete, including 80-foot steel stack, steam and water connections, etc. Plans and specifications can be seen and proposal forms obtained at office of secretary and of engineers, Hering & Fuller, 314 Oak Hall Bldg., Clarksburg, W. Va., after July 1; \$500 certified check; rights reserved.

Bridge Construction.—Sealed bids for construction of two steel and concrete bridges received by Phillips county clerk at courthouse, Helena, Ark., until noon July 5, and then opened by county judge and road commissioners; 124-foot structure over Lick River at Shell Bridge; 135-foot bridge across Big Creek at Bonner Bridge; plans and specifications at county clerk's office; \$500 certified check; rights reserved; work to be completed by October 15; John M. Quarles, road commissioner, in charge of work.

Bridge Construction.—H. H. Mayberry, president Fidelity Securities Corporation, Stahlman Bldg., Nashville, Tenn., wants following bridges for Nashville-Gallatin Interurban Railway: 100-foot truss bridge; 60-foot through girder bridge; one 60-foot and one 65-foot deck girder bridges; delivers Nashville within 60 days.

Bridge Construction.—I. C. Gibson, Clerk Arkansas County, will receive sealed bids until 10 A. M. July 22 (bids opened at 2 P. M. same day) for erection of following bridges: 30 feet long, 80 feet long, 180 feet long, 100 feet long, 544 feet long, 225 feet long, 80 feet long, 80 feet long, 50 feet long, 45 feet long, 106 feet long, 305 feet long; all bridges to be of steel, 16 feet wide, with concrete abutments and footings; certified check for 10 per cent. of amount of bid on each bridge required; usual rights reserved; plans on file in office of County Judge L. C. Smith, De Witt, Ark.; bridges to be completed on or before January 1, 1912.

Bridge Construction.—Bids will be received until 1 P. M. July 17 for construction of bridge across west branch of Susquehanna River at McElhattan, Pa. Address Clinton County Board of Commissioners, Lock Haven, Pa.; plans by Farris Engineering Co., Jenkins Arcade Bldg., Pittsburgh, Pa.

Bridge Construction.—Gall L. Barnard, County Engineer, will receive bids for Duval County Commissioners at his office, Room 9 Courthouse, Jacksonville, Fla., until 10 A. M. July 7 for furnishing material and labor necessary to build wooden bridge on Duval

(Fernandina) Rd. over creek known as Dead River, as shown upon plat on file in office of Mr. Barnard; certified check \$50; also until same date for furnishing material and constructing Duval county's half of bridge proposed over Nassau River on Duval (Fernandina) Rd. at point indicated on map on file in office of Mr. Barnard. Plans and specifications can be obtained from Mr. Barnard.

Bridge Construction.—J. M. Ackerman, County Commission, Navasota, Tex., will award contract July 1 for building two-span iron bridge; 80-foot concrete floor; no piers.

Breast Strap.—Chas. H. Coffield, Rockdale, Tex., wants to place order for manufacture of patented breast strap.

Building Materials.—D. P. Baker & Co., Ahoskie, N. C., in market for building material for eight buildings in course of construction.

Building Materials.—J. S. Eiford, Albemarle, N. C., wants prices on slate roof, hardwood floors and finish.

Building Materials.—First Methodist Episcopal Church, L. D. Jennings, chairman building committee, Sumter, S. C., wants prices on tile roof, copper gutters, copper conductors and flashings, skylights, brick interior trimmings, plaster ceiling and walls, plumbing, galvanized ventilators, waterproof cement floors, art glass and ornamental plaster work.

Building Materials.—First Methodist Episcopal Church, William Stackhouse, chairman, Marion, S. C., wants prices on impervious face brick, ornamental terra-cotta, cut granite and limestone, copper flashings and dome, skylights, brick interior trimmings, waterproof basement, steel trimmings, slate roof and art glass.

Building Materials.—Moultrie Oil & Fertilizer Co., Moultrie, Ga., will buy building materials.

Canal Construction.—Bobo & Brannon, civil engineers, Clarksdale, Miss., will receive bids until 8 P. M. July 20 for excavating drainage canal, about 2½ miles long, for Sunflower Plantation at Merigold, Miss.; excavation, about 35,000 cubic yards; duplicate profile and specifications on file in office of Taylor & Crate, 1433 Exchange Bldg., Memphis, Tenn.; of civil engineers at Clarksdale, and of J. A. Reeves, Merigold, Miss.

Car Couplers.—Pennsylvania Equipment Co., West End Trust Bldg., Philadelphia, Pa., wants 100 to 200 sets second-hand freight car couplers (Janney preferred); good M. C. B. condition.

Closets.—C. W. Johnson, Superintendent Schools, Mt. Pleasant, Tenn., wants prices on sanitary closets.

Coal-handling Machinery, etc.—Department of Interior, Washington, D. C. Sealed proposals in duplicate received until 2 P. M. July 3 for installation of coal and ash-

handling machinery in old postoffice department building, Washington, in accordance with specifications and drawings, copies obtainable from chief clerk of department; usual rights reserved; proposals marked "Proposals for coal and ash-handling machinery," and addressed to Secretary of Interior, Washington, D. C.; Carl A. Thompson, Assistant Secretary.

Concrete Mixer.—George Jewell, Annapolis, Md., wants good second-hand concrete mixer. State lowest price, full particulars and where can be seen.

Concrete Mixers.—Gadsden Concrete Co., Gadsden, Ala., E. C. Little, president, wants prices on concrete mixers.

Conveying Machinery.—J. W. Marshall, West Point, Va., wants conveying machinery; moving platform.

Crane.—Box 138, Anderson, S. C., wants new or second-hand electric crane for handling one to two-ton excavating or orange-peel bucket; 40-foot span, 35-foot lift; alternating current, 220 volts, 60 cycles; give particulars.

Dam.—Sealed proposals received by Southern Assembly for erection of earth dam and appurtenances on Assembly grounds near Waynesville until noon July 24; specifications and general plans may be seen at office of J. H. Seaver, Jr., chief engineer Southern Assembly, Waynesville, N. C., and at Manufacturers Record, Baltimore, Md., where bidding sheets may be obtained; bidders expected to examine site and acquaint themselves with local conditions; certified check (or bond) for \$500 required; usual rights reserved.

Desks.—C. W. Johnson, Superintendent Schools, Mt. Pleasant, Tenn., wants prices on adjustable desks.

Drainage.—Commissioners Drainage District No. 2 of Jefferson county, Pine Bluff, Ark., receive bids until noon July 3 for construction of drainage canal, about 200,000 cubic yards; bids will be opened at above date in office of J. B. White, engineer of board, Pine Bluff; plans, maps, profiles and specifications can be had by addressing engineer; certified check \$1000; C. H. Triplett, chairman of board.

Dredging.—U. S. Engineer Office, Room 309 Custom-house, Baltimore, Md. Proposals for dredging in Rockhall, Queenstown, Claborn and Cambridge harbors and Susquehanna, Chester, Choptank, Warwick, Pocomoke, La Trappe, Wicomico and Manokin rivers and Tyaskin Creek, Maryland; Nanticoke River, Delaware and Maryland, and Broad Creek River, Delaware, will be received until 1 P. M. June 26. Information on application. Thos. L. Casey, Colonel, Engineers.

Dump Cars.—Pennsylvania Equipment Co., West End Trust Bldg., Philadelphia, Pa., wants five to ten standard gauge, 20 cubic yards, Western Wheel Scraper Co. steel-lined dump cars; second-hand.

Electric Light Plant.—City of Sentinel, Okla., will receive bids until noon July 6 for electric-light plant equipment, including engine, boiler, generator and line material; specifications obtainable from J. M. Terry, clerk, or F. Murch & Co., engineers, Clinton, Okla.

Electric Motors.—Gadsden Concrete Co., Gadsden, Ala., E. C. Little, president, wants prices on electric motors.

Engines and Boilers.—Gadsden Concrete Co., Gadsden, Ala., E. C. Little, president, wants prices on steam boilers and engines.

Engine.—Kershaw Oil Mill, Kershaw, S. C., wants 12x36 right-hand Corliss engine; second-hand.

Exhaust Fan.—J. D. Kennedy, Memphis, Tenn., wants second-hand exhaust fan; 30-inch intake.

Exports.—Ralph W. Ashcroft, Racine, Wis., who has been interested in food products, such as lard, canned meats, fish, vegetables, fruit, hams, bacon, etc., is now ready to consider (for correspondents) prices on any lines for which there is or may be a market in Great Britain.

Fertilizer Machinery.—Moultrie Oil & Fertilizer Co., Moultrie, Ga., will buy machinery for fertilizer plant.

Flooring.—Edward J. De Lacy, 706 Florida Ave. N. W., Washington, D. C., wants prices on parquet floors.

Gas Engine.—Pennsylvania Equipment Co., West End Trust Bldg., Philadelphia, Pa., wants new or second-hand 250 to 350-horse-power vertical or horizontal gas engine.

Gasoline Engines.—E. M. Hayes, Pacific Beach, Cal., wants prices on gasoline engines.

Gasoline Engines.—Greenville Pottery Co., S. Robbins, Winnsboro, Tex., proprietor, in market for gasoline engine.

Glass.—D. P. Baker & Co., Ahoskie, N. C., in market for plate glass for eight building fronts.

Glassware Machinery.—Wheeling Tumbler Co., G. G. Beans, secretary, Wheeling, W. Va., will open bids August 15 for machinery for daily capacity of 1000 dozen tumblers.

Grain Elevator.—Darrah Warehouse Co., Little Rock, Ark., will receive bids until noon July 3 for erection of grain elevator with machinery; separate bids on building erected complete and machinery furnished and installed complete; plans on file at Builders' Exchange, State National Bank Bldg.

Heating Plant.—C. W. Johnson, Superintendent Schools, Mt. Pleasant, Tenn., wants prices on heating plant.

Heating Plant.—Wrightsville & Tennille Railroad Co., D. R. Thomas, superintendent, Tennille, Ga., wants prices on steam-heating plant for depot at Dublin, Ga.

Heating Plant.—First Methodist Episcopal Church, L. D. Jennings, chairman building committee, Sumter, S. C., wants prices on steam-heating plant.

Heating Plant.—First Methodist Episcopal Church, William Stackhouse, chairman, Marion, S. C., wants prices on steam-heating plant.

Heating Plant.—Executive Committee, Board of Education, Nashville, Tenn., will receive bids until noon July 1 for heating and ventilating systems for Turbox and Howard schools; plans and specifications obtainable from Allen-Scales Engineering Co., Stahlman Bldg., Nashville, on deposit of \$5.

Heating Plant.—Wayne County Commissioners, Goldsboro, N. C., will receive plans and bids until August 7 for installation of steam-heating plant in jail; contractors to examine building; L. E. Osmond, chairman Commissioners.

Holst.—Contractors, Box 154, Lake Arthur, La., want 20 or 25-horse-power double-drum holst to run on wide wheels; immediate delivery South Louisiana.

Holsts.—Blevins & Leigh, Van Buren, Ark., are in market for steam or gasoline wheelbarrow holst; will consider specifications and net cash price.

Hydraulic Dredge.—MacArthur Bros. Company, Hanover Bank Bldg., 11 Pine St., New York, wants to rent or buy second-hand hydraulic seagoing dredge; 15 inches or larger; must be located at Southern Atlantic or Gulf port.

Iron Castings.—N. F. Coffey & Sons Manufacturing Co., Black Rock, Ark., wants iron for manufacture of iron buggy and wagon singletrees and doubletrees, plow singletrees and wagon neck yokes.

Iron Stairway, etc.—R. V. La Dow, Superintendent of Prisons, Department of Justice, Washington, D. C., will receive bids until 10 A. M. July 18 for cast-iron stairway, elevator door sills, etc., for hospital buildings at United States penitentiaries, Atlanta, Ga., and Leavenworth, Kans.; specifications, etc., on file at office of superintendent.

Implement Manufacturers.—T. W. Pugh, Powhatan, Ark., wants to correspond relative to placing order for manufacture of hoe.

Keyseater.—Atlanta Utility Works, East Point, Ga., wants keyseater with 18-inch stroke.

Labels.—Duncan McLeod, Whitakers, N. C., wants labels for vegetable cannery.

Lighting System.—Baltimore (Md.) Board of Awards, care City Register, City Hall, will receive bids until 11 A. M. July 5 for installation of ornamental electric incandescent street-lighting system on Lexington St., between Holliday and Gay Sts.; specifications on file with Robert J. McCuen, Superintendent Lamps and Lighting, City Hall.

Lithographs.—Landmark Sunday-school Concern, Little Rock, Ark., care E. T. Sears, wants lithograph catalogues.

Lumber.—Armory Board, State of Florida, Jacksonville, Fla. Sealed proposals for furnishing 38,000 feet creosoted prime yellow pine lumber and 2000 feet prime yellow pine lumber received at office of secretary, 16-20 E. Bay St., until noon July 5, and then publicly opened. Information on application. Fred G. Yerkes, Major Ordnance Department, N. G. F., secretary.

Macadamizing.—Anne Arundel County Commissioners, Annapolis, Md., receive bids until 11 A. M. July 5 for grading and surfacing with macadam Patapsco Ave., in Brooklyn, Md., from 1st St. to Pennington Ave., one mile; plans and specifications on file with County Commissioners and State Road Commission, Baltimore, Md.; plans and specifications may be secured from State Roads Commission upon payment of \$2; bids

to be on forms provided; E. T. Hayman, road engineer; S. O. Tilghman, clerk.

Machine Tools.—Greensboro Supply Co., Greensboro, N. C., wants second-hand eight-foot planer; also 22 to 30-inch drill press. Give complete specifications and best dealers' prices.

Machine-shop Equipment.—Smithfield Garage & Machine Co., Smithfield, N. C., will purchase additional machinery.

Machine Tools.—Greensboro Supply Co., Greensboro, N. C., wants iron turning lathe, 40 to 42-inch swing; also power-driven hydraulic wheel press, not less than 100 tons capacity; good operative condition. Give full details and lowest dealers' price.

Mail-handling Apparatus.—Treasury Department, Office of Supervising Architect, Washington, D. C. Proposals will be received until 3 P. M. on July 17 for mechanical system of mail-handling apparatus in United States postoffice, St. Louis, Mo., in accordance with specification and drawings, copies of which may be obtained at above office at discretion of supervising architect, James Knox Taylor.

Manufactures.—Alois Schweiger & Co., IX Bergasse 7, Vienna, Austria, wants samples and prices on "American goods suitable for the Far East."

Marble Blocks.—Richard W. Massey, Birmingham, Ala., wants to correspond with manufacturers of marble blocks for floors.

Merry-go-round.—W. M. Musslewhite, Reynolds, Ga., wants to buy merry-go-round.

Metal Ceilings.—D. P. Baker & Co., Ahoskie, N. C., in market for about 150 squares metal ceiling.

Milling Machinery.—E. M. Hayes, Pacific Beach, Cal., wants milling machinery for flour mill.

Nozzles, etc.—Baltimore (Md.) Board of Awards will receive bids at office of City Register, City Hall, until 11 A. M. July 5 for furnishing and delivering nozzles, deflectors and special castings for sprinkling filters at sewage-disposal works, on west shore of Back River, Baltimore county, Maryland. Specifications can be obtained upon application at office of Sewerage Commission, Room 904 American Bldg.; certified check \$250; approximate quantities, 1200 nozzles and deflectors, 1200 special castings.

Oil-mill Machinery.—Moultrie Oil & Fertilizer Co., Moultrie, Ga., will buy machinery for oil mill and fertilizer plant.

Oil Refinery.—H. M. Holleman, care of Colorado State and Savings Bank, Denver, Col., is interested in locating oil refinery; wants to correspond with owners of abandoned plant or wants prices on new machinery.

Organ.—First Methodist Episcopal Church, L. D. Jennings, chairman building committee, Sumter, S. C., wants prices on pipe organ.

Organ.—First Methodist Episcopal Church, William Stackhouse, chairman, Marion, S. C., wants prices on pipe organ.

Paper Bags.—Arkansas Lime Co., East Sylamore, Ark., wants paper bags for air-slacked lime.

Paper Boxes, etc.—E. M. Hayes, Pacific Beach, Cal., wants prices on paper bags and boxes.

Paving.—Office Commissioners, District of Columbia, Washington. Sealed proposals received at this office until 2 P. M. July 7 for laying cement sidewalks in District of Columbia. Forms of proposal, specifications, etc., may be obtained from chief clerk, engineer department, Room 427 District Bldg., Washington, D. C.

Paving.—Gilbert C. White, Durham, N. C., wants prices on asphalt and vitrified brick paving, on five-inch concrete base, for Lumberton, N. C.

Paving.—City Council, St. Petersburg, Fla., will receive bids until 7.30 P. M. July 6 for grading and paving 3d St. from Fifth to Sixth Ave.; width, 30 feet; vitrified brick laid flat; granite curbing; will also receive bids until same date for paving 1st St. south from Fifth to Sixth Ave.; width, 20 feet; vitrified brick laid flat; granite curbing; profiles, plans and specifications on file with City Engineer; bids to be separate on grading, curbing and paving; certified check for \$300 to accompany each bid; W. F. Divine, City Clerk.

Paving.—John Skain, Mayor, Lexington, Ky., will receive bids until 10 A. M. June 30 for paving Lexington Ave. from Maxwell to Adams St. with macadam and macadam with asphalt binder; certified check \$300.

Plaster Paris.—Greenville Pottery Co., S. Robbins, Winnsboro, Tex., proprietor, in market for plaster paris.

Pipe-line Equipment.—Tennessee Oil & Gas Co., 530 Candler Bldg., Atlanta, Ga.,

wants to correspond with manufacturers of six-inch pipe, storage tanks and other equipment for oil field development.

Plumbing.—J. S. Edrd, Albemarle, N. C., wants prices on plumbing, including three baths.

Pump.—Greenville Pottery Co., S. Robbins, proprietor, Winnsboro, Tex., in market for pump.

Rails.—G. Mathes Iron & Metal Co., St. Louis, Mo., wants 10 miles (or more) 40 or 45-pound relaying rail.

Road Construction.—Bids received at clerk's office, Christiansburg, Va., until 10 A. M. July 6 for constructing one mile of macadam road between Christiansburg and Auburn, in Montgomery county; plans and specifications on file at clerk's office in Christiansburg and at office of P. St. J. Wilson, State Highway Commissioner, Richmond, Va.; certified check \$200; for further information address P. St. J. Wilson.

Road Construction.—Highway Department Board of State Engineers, Room 104, New Orleans Court Bldg. Proposals will be received at office Highway Department, Board of State Engineers, Room 104, New Orleans Court Bldg., New Orleans, La., until noon July 10 for construction of main public highway from New Iberia to Jeanerette, Iberia parish, Louisiana. Information as to location, character of work, amount, extent and class of materials, terms of payment, regulations governing manner of submitting proposals and executing contract may on application be obtained at office of Highway Department. Gervais Lombard, Acting State Highway Engineer; Frank M. Kerr, Chief State Engineer and President Board of State Engineers.

Road Roller.—Pennsylvania Equipment Co., West End Trust Bldg., Broad and South Penn Sq., Philadelphia, Pa., wants second-hand 10-ton steam road roller. State shop number, how long used, condition, etc.

Safe, Vault, etc.—Riceville Bank (D. H. Roberts to be addressed), Riceville, Tenn., wants prices on safe, vault and other fixtures.

Safe, etc.—First National Bank, Tyrone, Okla., will purchase safe, two vault doors and other bank fixtures.

Sawmill.—Box 559, Cincinnati, O., wants six or seven-foot second-hand guaranteed band mill, with saws, filing-room machinery and gang edger. Give full description and lowest dealers' price.

Seating.—First Methodist Episcopal Church, William Stackhouse, chairman, Marion, S. C., wants prices on seating for 1200.

Seating.—First Methodist Episcopal Church, L. D. Jennings, chairman building committee, Sumter, S. C., wants prices on seating for about 1000.

Sewer Construction.—John Skain, Mayor, Lexington, Ky., will receive bids until 10 A. M. June 30 for constructing eight-inch sanitary sewers with five-inch connections to curb line on South Upper and Limestone Sts. from Bolivar St. to Virginia Ave.; Maxwell St. from Broadway to Madison Pl.; Upper St. from Church to 5th St.; East High St. from Rose St. to Woodland Ave., and on East Maxwell St. from Rose St. to Linden Walk; certified check \$100.

Sewer Construction.—Board of Public Works, City Hall, Nashville, Tenn., will receive bids until 3 P. M. August 10 for building about seven miles circular brick trunk sewers, ranging from 30 inches to 111 inches; bids will be received separately for several sewers and as whole for entire work; plans and profiles on file with William W. Southgate, City Engineer, City Hall, and specifications and proposal blanks can be obtained on application to City Engineer; work comprises 81,000 cubic yards of both earth and rock excavation and 13,000,000 brick.

Sewer Construction.—Office of District Commissioners, Washington, D. C. Sealed proposals received at this office until 2 P. M. July 12 for construction of section 1 of Anacostia main intercepting sewer and section 2 of Rock Creek main intercepting sewer, in District of Columbia. Specifications, forms of proposal and necessary information may be obtained from chief clerk, engineer department, Room 427 District Bldg., Washington.

Shafting and Pulleys.—Greenville Pottery Co., S. Robbins, proprietor, Winnsboro, Tex., in market for shafting and pulleys.

Shingle Equipment.—F. R. Singlehurst, manager Gulf Novelty Works, St. Petersburg, Fla., wants shingle outfit.

Store Windows.—Edward J. De Lacy, 705 Florida Ave. N. W., Washington, D. C., wants prices on show windows.

Sewer Construction.—Commissioners of Sewerage, P. L. Atherton, chairman, 605 Equitable Bldg., Louisville, Ky., receive bids until noon July 7 for construction of Long

Ave. sewer, contract No. 51; work consists mainly of 4245 feet vitrified pipe sewer, ranging in size from 10 to 22 inches; average depth of cut 8.5 feet; about 300 cubic yards rock and 45 cubic yards concrete; each bid to be accompanied by certified check for 7 per cent. of total amount of proposal or "bidder's bond," as described in proposal form; plans and specifications on file with Harrison P. Eddy, consulting engineer, 14 Beacon St., Boston, Mass., or at office of commissioners; J. B. F. Breed, chief engineer.

Speaking-tube Apparatus.—See "Whistles."

Stoves.—Sayre & Baldwin, 405 Bleckley Bldg., Anderson, S. C., want jacketed stoves for rural school buildings.

Tin.—Cedartown Tray Co., Cedartown, Ga., wants tin for manufacture of paper trays; tin, 11-16x.007; large quantities.

Tin Roofing.—D. P. Baker & Co., Ahoskie, N. C., is market for about 150 squares tin roofing, 30-pound coating.

Tin Whistles.—Southern Blower & Manufacturing Co., 396 Monroe Ave., Memphis, Tenn., wants samples and prices on tin whistles for speaking tubes; lots of 100,000.

Urns.—See "Marble Blocks."

Traction Engine.—Contractors, Box 154, Lake Arthur, La., want eight-horse-power

tractor or portable for haulage; South Louisiana delivery.

Water-works Equipment.—M. P. McCracken, Mayor, Olney, Tex., wants prices on boiler, pump, standpipe and eight-inch tiling.

Well Drilling.—Kentwood, La., receives bids until July 6 for drilling artesian well. Specifications may be obtained from W. D. Welsh, Mayor, or George F. Conant, civil engineer, Kentwood, La.

Well Drilling.—Melissa Water-Works Co., Melissa, Tex., is prepared to contract with well drillers for drilling deep well.

Wharf.—Office Commissioners, D. C., Washington. Sealed proposals received until 2 P. M. July 6 for reconstructing sand and gravel wharf, Water St. S. W., between 9th and 10th Sts. Forms of proposal, specifications, etc., may be obtained from Chief Clerk, Engineer Department, Room 427 District Bldg.

Woodworking Machinery.—L. E. Miller, care Southmont Realty Co., Lexington, N. C., wants to correspond with manufacturers of hub, spoke and handle machinery.

Woodworking Machinery.—Osceola Hoop & Lumber Co., McKenzie, Tenn., wants prices on second-hand machinery for hoop factory, including eight-foot cut-hoop machine, combination pointer and lathe and one triple-head planer.

INDUSTRIAL NEWS OF INTEREST

Heating and Plumbing Contract.

The installation of the heating system and all plumbing work in the new Commercial National Bank Bldg., Charlotte, N. C., will be done under contract by the Toomey Plumbing & Heating Co. of Charlotte. This is one of the old well-known plumbing and heating concerns of Charlotte. It extends its work to Virginia as well as the Carolinas.

Demand for Exhaust and Blow Piping.

A constantly increasing demand is reported for the exhaust and blow piping supplies manufactured by Skinner Bros., 1013 N. Broadway, St. Louis. They make a specialty of the slow-speed systems and remodel old systems into the slow-speed type. Several important orders for their lines of business have been recently obtained in the South.

Contracts for Reinforced Concrete Buildings.

The contract for the construction of the \$225,000 building for the Quaker Oats Co., St. Louis, has been awarded to the Stewart Construction Co. of that city. The building will be of reinforced concrete construction. This company has also received the contract for erecting reinforced stock barns in Fort Worth, Tex., for the care of horses and mules.

Lexington (Ky.) Paving Contracts.

Bids were recently opened for the paving of streets in Lexington, Ky., covering 60,000 square yards of sheet asphalt and 10,000 square yards of brick pavement. The award was made to Carey & Reed, contractors, Perry Bldg., Philadelphia. The sheet asphalt is to be laid on six-inch concrete base, and vitrified bricks are to be used on the brick-paving contract. P. P. O'Neil, Lexington, is the engineer in charge.

Steel Shed Material for Sale.

The material necessary to construct a steel shed complete is offered for immediate sale by C. M. Ellinger, Fayette street and East avenue, Baltimore. This will make a shed 86x369 feet, with a clear span of 86 feet; height of posts, 20 feet. It will make a suitable factory building, store shed or for other similar use, and is ready to be put up as soon as directed. This material can be easily and conveniently transported to any point desired.

Salesmen for Troy Wagons Wanted.

In order to further extend the sale of Troy dump wagons throughout the South and elsewhere, the Troy Wagon Works Co., Troy, O., desires to engage ten salesmen, whose experience will enable them to reach contractors and dealers effectively. These salesmen will be sent to various points to develop new business and to increase the present business. The Troy dump wagon and the Troy Special are well known for easy running, easy loading, good carrying capacity and bottom-dumping facilities.

Coal-Washing and Handling Machinery.

Contracts amounting to \$30,000 for coal-washing and handling machinery have been made by the I. & E. Greenwald Co., Cincinnati, with the Roberts & Schaefer Co., Chi-

cago. Two of these outfits are manufactured by the Greenwald company are for Illinois orders, and two for British Columbia. In addition to these orders, the Greenwald company states that it has more work in hand than at any time in the past four years, and the indications are for continued increasing business.

Mulconroy Company's Expansion.

By the purchase of all patents, machinery and the business of the Metallic Flexible Tubing Co., Philadelphia, the Mulconroy Co., 722 Arch street, Philadelphia, has expanded its business of the manufacture of belting, packing hose and mechanical rubber goods, to include the additional machinery increasing its already extensive facilities for manufacturing all kinds of flexible metallic hose and hose coverings. Announcement is made by the Metallic Flexible Tubing Co. that it relinquishes all interests in this business at the expiration of the month of June.

Changes in Sales Representatives.

Announcement is made that the Jones & Laughlin Steel Co. of Pittsburgh will establish its own representatives in Detroit and St. Louis beginning July 1. On that date F. A. Goodrich & Co. ceases to represent the Jones & Laughlin company at Detroit and St. Louis. Frederick H. Holt will represent the company in Detroit, with offices in the Penobscot Bldg. He will be the district sales manager for the Detroit district. He has heretofore been in charge of the Detroit office of F. A. Goodrich & Co. The St. Louis office will be in the Pierce Bldg., with E. D. Pierce, from the general sales office in Pittsburgh, in charge as district sales manager for the St. Louis district. A Pittsburgh sales district will be established in charge of A. C. Pollock, who is also from the general sales offices of the company.

Lumber Plant and Land for Sale.

A large lumber-manufacturing plant, with logging railroad and equipment, extensive timber lands and timber-cutting privileges, are offered for sale by the Southern Carolina Lumber Co. of Marion, S. C. The property is located at and near Marion, and consists of a mill site of 20 acres, with good railroad facilities; a band-saw mill, capacity 50,000 feet per day; drykiln, planing and stave mills, electric-light plant, store building and merchandise, office building, boarding-house, 5 dwellings and 15 employees' cottages; 6122 acres timber land, 39,602 acres of timber, including short-leaf pine, cypress and various hardwoods; 10 miles of logging railroad and equipments, including locomotive and 25 logging cars. Further information may be obtained by addressing John H. Rademaker, treasurer, Manatee, Mich. The bids will be opened at Marion, S. C., August 7.

Apollo All-Metal Perpetual Calendar.

The demand for the Apollo all-metal perpetual calendar, as described in the Manufacturers Record of January 12, has been so great that it has been necessary for the American Sheet & Tin Plate Co., Frick Bldg., Pittsburgh, to procure new editions. The company is again ready to forward one to every dealer, metal worker or user of metal sheets or tin plate who will write for it. This calendar is made entirely of the com-

pany's products. The back is made of Apollo best bloom galvanized sheet, 28 gauge, 14x20 inches, while the plates are made of 34-gauge enameling stock, enameled black with dates printed in aluminum. The perpetual feature of the calendar illustrates the company's faith in the perpetual quality of Apollo best bloom, both of which account for the great demand for this calendar.

Brick Contract for Norfolk Depot.

The contract for all the face brick for the million-dollar Union Depot to be constructed at Norfolk, Va., has been secured by the Southern Building Material Co. of that city. This contract was let in competition with about 30 other exhibits of brick from many sections of the country. The mingled shades of "velvet" brick of the Warren B. Ferris Brick Co., Columbus, O., will be used in this contract. This company deals in general building supplies, including fireproof portable garages, structural steel, reinforcing, ornamental iron, pressed brick of all varieties, ornamental terra-cotta, metal lath, corner heading, fireproof windows and doors, plaster, tile, cement, lime, plaster ornaments, mortar color, roofing tile, slate; enameled, paving and building brick. The company is prepared to submit samples and quote prices on all kinds of building materials.

Foos Kerosene Oil Engines.

In "Oil Bulletin 32," now in preparation, the Foos Gas Engine Co., Springfield, O., will publish data collected from actual power-plant experience with its engines operating on petroleum and distillates. Advance references to this bulletin apprise the public of the reliability and economy of these engines in comparison with other forms and of the great advantages claimed for the oil engines. Comparisons are made between a Foos oil engine and a gasoline engine, using kerosene at 5 cents per gallon and gasoline at 12 cents per gallon, and the relative economy shown. The Foos company claims that nothing is sacrificed in durability and reliability to gain the economy shown in the oil engine, and that 25 years' experience enables it to produce an oil plant possessing all these qualities in a high degree.

Success of Charlotte Branch Office.

Among the recent sales by the Charlotte office of J. S. Schofield's Sons Company of Macon, Ga., are three boilers, a smokestack, elevated water tank and tower for the Westervelt Mills, Greenville, S. C.; two boilers, elevated tank and tower for the Oakland Cotton Mills, Newberry, S. C.; a 150,000-gallon standpipe for Morehead City, N. C.; elevated tanks and towers for the Lee Manufacturing Co., the Thomasville Furniture Co. and the Standard Chair Co. of Thomasville, N. C.; a new boiler for the Grace Furniture Co., Salisbury, N. C.; two 250-horsepower high-pressure boilers for Champion Lumber Co., Crestmont, N. C., and a number of boilers and engines for cotton gins. A very successful season with good outlook for future business is reported. This company manufactures boilers, engines, towers, tanks, standpipes, self-supporting steel stacks, plate and sheet iron work, sawmills, etc. A specialty is made of Schofield boilers and engines, particularly adapted to sawmills, oil mills, cotton gins, etc.

Oxy-Acetylene Welding and Cutting.

The growing importance of oxy-acetylene welding and cutting processes has attracted the attention of industrial companies to this form of repairing metal work in place and of removing metal structures by the cutting process when necessary. In order to still further advance the development and possibilities of this form of work the Davis-Bournonville Acetylene Development Co., 90 West St., New York, has united with the National Pneumatic Co. of Chicago as sole selling agent of the latter. The high business standing of the Davis-Bournonville company and the efficiency of its apparatus is generally acknowledged, and it is believed that greater advance is assured by the consolidation of these interests. Many ideas of importance have been developed and a valuable experience acquired, so that high-class ability as well as financial strength has been added to the company. The business is divided into the Eastern department, with offices in its present quarters at 90 West St., New York, and the Western department, with offices at 315 Laflin St., Chicago.

Cement Sewer Pipes and Building Material.

The system of making cement sewer pipes, meter boxes, cornices, door steps, fences, balustrades and building material, as developed

by W. A. Reynolds of Asheville, N. C., has produced very successful results as applied by the Knight-Alexander Stone & Sewer Pipe Co. of Asheville. The patent rights have been applied for and Knight & Alexander are preparing to enlarge their plant to take care of the increasing business that is resulting from the use of this material. The cement blocks, pipes, etc., are made of one part cement and two parts pulverized stone. The stone is obtained as a by-product from the Balfour quarries. After the mixture is made and worked it is placed in the molds of the particular design required for the object to be made and seasoned by steam for a few hours. It takes not over 10 hours to make the finished product ready for use or shipment. Sewer pipes made of this material have been used by the authorities of Buncombe and other North Carolina counties, and it is stated that the demand has been so great that it is difficult for the plant to keep up with the orders.

"Monad" Welded Steel Sash.

Steel window sash of a new form has been designed in response to the growing demand for an economical and efficient fireproof window, particularly for use in reinforced concrete buildings. This is called the "Monad" welded steel sash, and has been placed on the market by the Southern States Steel Co., Fractorian Bldg., Dallas, Tex. The strong points claimed for this sash are in the method of glazing and the manner in which the intersections of the various members are welded together, making a solid one-piece frame. The putty is not depended on to hold the glass in place, but merely to make the window watertight. The glass is firmly secured by a continuous metal glazing strip, quickly and easily applied, and which offers greater security against the glass falling out in case of fire than when glazing pins or spring strips are used. This sash is said to have received marked appreciation from architects and builders and to bid fair to become a large and important Texas industry. Among some recent contracts involving its use are the Huey & Phillips warehouse, Dallas; the Fort Stockton Ice & Power plant at Fort Stockton, Tex., and the Doran warehouse, Dallas.

Public Sale of Lookout Mountain Coal & Coke Co.

The entire holdings of the Lookout Mountain Coal & Coke Co. will be sold at public auction at Chattanooga, Tenn., July 19, at noon. This property contains between 5000 and 7000 acres of coal land in Dade and Walker counties, Georgia, the greater portion of which is heavily covered with white oak, post oak, poplar and tan bark timber. In addition to the coal deposits clay has been found and tested, the results of which show that the material is adapted to the manufacture of paving brick, vitrified brick, roofing tile and other clay products. The Central of Georgia Railway passes through the entire property. The sale will be made on account of the ill-health of the principal owner, and will be made under favorable terms to the buyer. Upon the property are situated 75 operatives' houses, commissary buildings, stables and other buildings necessary for the successful operation of extensive coal mines. Two mines are in operation with complete equipment, and suitable trackage and tipples facilities. A complete inventory and other information will be furnished upon application at the office of the company, Fourth National Bank Bldg., Atlanta, Ga., or at the office of R. B. Cooke, 1005 James Bldg., Chattanooga, or upon application to Earl Jackson, attorney, Lafayette, Walker county, Georgia.

Additions to Machine Plant.

Two new buildings have just been completed for the Smithfield Garage & Machine Co., Smithfield, N. C. In addition to the present buildings, and this company has also added to its manufacturing facilities by the purchase of the large and complete plant of the Selma Iron & Machine Co. at Selma, N. C. The new buildings are 40x115 feet and 60x100 feet, and drill presses, planers and other machinery of the latest type have been installed. It is intended to add machinery as may be found necessary in order to keep this plant prepared to do any kind of machine work that can be done by any shop or foundry. This company deals in gasoline and kerosene motors, automobiles, bicycles, tricycles, motor cycles and accessories; mill supplies, pipe and pipefittings, belting, shafting and pulleys. Repairing machinery and making castings, repair parts, etc., in iron and brass, also plumbing, general machinists' work and vulcanizing are carried on under experienced operators in each class of work. J. R. Lewis, who has

had over 40 years' experience in the machine business, has charge of that department. An experienced automobile machinist and an experienced plumber have been especially employed to superintend their respective departments.

Chapman Valves in the Southwest.

Miss C. B. Haggart is manager of the St. Louis office of the well-known Chapman Valve Manufacturing Co. of Springfield, Mass., and the success of that office in the sale of valves and fire hydrants in various Western cities is an interesting illustration of a woman's business ability in handling important interests. Her sales comprise the Chapman valves, fire hydrants and sluice gates in the territory covered by the St. Louis office, including Missouri, Kansas, Oklahoma, Texas, Louisiana and Arkansas. One of the large orders recently secured was from the city government of Kansas City, Kans. Other similar orders have come from the smaller cities within the territory of the St. Louis office. One large order was for 52 hydrants for the city of Columbia, Mo., and another was for a consignment of gas valves 20 inches in diameter for the Laclede Gas Light Co. of St. Louis. Miss Haggart evidently understands her subject and has been able to convince prospective buyers of the merits of Chapman products in competition with some of the best salesmen representing other companies. Her business experience has covered both engineering and manufacturing lines obtained with the engineering firm of Ford, Bacon & Davis, and later with the General Electric Co.'s Chicago office. The Chapman company's offices are located in the principal cities, including the St. Louis office, and one at Charlotte, N. C.

Activity in Diesel Engine Sales.

Among recent sales and installations of Diesel engines, and also those that have been in daily operation for several weeks, are the following, distributed in various sections of the country: Five 225-horsepower Diesel oil engines ordered for the General Phosphate Co. of Florida, at Pembroke, Fla.; two 120-horsepower Diesels have been in daily operation in the municipal electric-light plant, Tibodaux, Fla., for some time; the Ennis Ice, Light & Power Co., Ennis, Tex., has been operating a 225-horsepower Diesel, and has purchased another of 170 horse-power; a 225-horsepower Diesel has been ordered for the large canning factory of W. B. Walker & Sons, Austin, Tex.; two 120-horsepower Diesels have been ordered for the Arkansas Cold-Storage Co., Little Rock, Ark.; one 225-horsepower Diesel has been ordered for the Corpus Christi Ice & Electric Co., Corpus Christi, Tex.; a 225-horsepower Diesel, in addition to the two of same power already in operation, has been ordered by the Cleburne Gas & Electric Co., Cleburne, Tex.; a 120-horsepower Diesel has been ordered for the Plant City Ice & Power Co., Plant City, Fla. Other extensive orders include two 225-horsepower Diesels now in operation at the Anheuser-Busch Brewing Association's plant at St. Louis, and three large units at the Bronx New York City ice plant of the same company; two 225-horsepower Diesels for the Hershey Chocolate Co., Hershey, Pa.; one 75-horsepower Diesel for the Rahr Brewing Co., Oshkosh, Wis.; one 225-horsepower Diesel has been in operation for several weeks at the U. S. Naval Torpedo Station, Newport, R. I.; the fourth Diesel unit of 225-horsepower engine has just been added to the municipal lighting plant, Mansfield, Mass., and a 170-horsepower Diesel has been ordered for installation to be used as an auxiliary to the water-power plant of the Granite Falls (Minn.) Electric Works. These engines are manufactured and sold by the Busch-Sulzer Bros.-Diesel Engine Co., South Side Bank Bldg., St. Louis, Mo.

TRADE LITERATURE.

Valuable Information on Roofs.

The eighth edition of the Genuine Bangor Slate Co.'s publication, "Roof Salad," contains interesting comparisons between metal and shingle roofs and slate roofs, in connection with the effects of lightning, rust, etc. It is stated that in addition to this information the company's "Roof Library" contains valuable information on all kinds of roofs, and all or any part of the complete set of publications will be mailed on request.

The American Transparol Co.

A folder describing the uses and advantages of "Transparol" as a finish or coating when applied to all kinds of vehicles, over leather, metal parts, bodies, pantosote tops,

on all kinds of woodwork, furniture, etc., is issued by the American Transparol Co., 50 Church St., New York. It may be used in place of a varnish or paint, and it is claimed that acids, gasoline, oil, rain and changes in the atmosphere do not affect it. It may be applied in warm or cold weather. Transparol is described as a transparent surface covering that will resist sulphuric acid and the effects of the atmosphere.

Dennison's Crepe Paper.

The various forms and characters of crepe paper as made by the Dennison Manufacturing Co., South Framingham, Mass., are described, with examples of effects produced by its use, in a booklet recently issued. This is the second of a series of booklets being issued by the Dennison company. It may be obtained from any of the Dennison stores located in the principal cities throughout the country. Crepe paper in the home, paper flowers, table decorations, special-day ornamentalations, costumes and other crepe-paper decorations are particularly described. Dennison's price-list will be sent upon request.

The Texas Strainer Co.

A folder recently issued by the Texas Strainer Co. of Beaumont contains price-list of Myer's canvas packers and of oil and water well strainers using round and key-stone galvanized and brass wire. It also contains a statement of the advantage of strainers as wound with its wire wrapping machine, which follows the curvature of the pipe instead of remaining stationary as in other systems. The claim is made that the openings of strainers wound in this way do not vary more than two-thousandths of an inch from end to end of the winding. This company manufactures oil and water well strainers, Myer's canvas packers and oil and water well supplies. A sample of strainer will be mailed on request.

Steam-Hydraulic Forging and Bending Presses.

The advantages of the quick-acting steam-hydraulic forging and bending presses are stated in the catalogue under the above title published by the Mesta Machine Co., Oliver Bldg., Pittsburg. A general description of the Haniel & Laue presses as made under exclusive rights in the United States and Canada by the Mesta Machine Co. is included in the catalogue, together with illustrations showing its construction. This form of presses is patented by Haniel & Laue of Dusseldorf, Germany, and they are in extensive use there and at the Krupp Works at Essen. Illustrations of presses in use at the Krupp Works up to 5000 tons and one of 3000 tons at the Haniel & Laue Works are shown in the catalogue.

Parsons Traction Trench Excavator.

Twenty full-page illustrations of the Parsons traction trench excavator, showing it in operation on different grades of trenching work, are included in the catalogue recently issued. This excavator is made by the G. W. Parsons Company, Newton, In. A complete description of its different sizes of machines is given in the catalogue, with explanation of their uses and advantages. The excavator of size to dig any width from 28 to 60 inches and any depth to 20 feet weighs 22 tons, complete. Larger machines are built weighing up to 45 tons. It is self-propelling while engaged in digging, and will transport itself from place to place at a rate of two to three miles per hour. The company will furnish any information requested relative to excavating trenches by machinery.

Modern Flour Mill Machinery.

The various machines and equipments used in modern flour mills as manufactured by The Wolf Company, Chambersburg, Pa., are illustrated and described in its 120-page catalogue. In addition to manufacturing this machinery the company takes contracts for remodeling mills and furnishing new machinery and for installing it. The life guarantee given with each sale is stated and attention called to the strength of the guarantee, and the attractive prices at which these machines can be sold. The machinery shown in this catalogue includes roller mills, single and double; roller-mill drives, roll scrapers, helical gear drives, feed roller mills, ball bearings, collar oil bearings, jumbo crushing roll mill stones, packers, mixers, sifters, shaking screens, flaking rolls, gyrators, corn and cob crushers, grain cleaners, dust collectors, elevators, spiral chutes, power-transmission equipment, steam drives, wheat scourers, wheat steamers, wheat-washing machines, turbine water-wheels, etc.

OBITUARY.

Death of Wilber Jones.

The Southern Furniture Journal of High Point, N. C., announces with much regret the death of its manager, Mr. Wilber Jones. He attended the annual meeting of the North Carolina Retail Furniture Dealers' Association at Asheville recently, and while there suddenly succumbed to heart trouble. Mr. Jones was well known to the retail furniture trade of the South.

Erister Ashcraft.

Announcement has been made of the death of Erister Ashcraft, secretary and treasurer of the Ashcraft Cotton Mills of Florence, Ala. Mr. Ashcraft was one of the organizers of this company and has been one of the principal factors in establishing it as an important enterprise. He was well known to the cotton goods and cotton-oil industry, in which he was extensively interested. Last year he was a member of the Committee on Rules of the Interstate Cotton Crushers' Association.

FINANCIAL NEWS

The MANUFACTURERS RECORD invites information about Southern financial matters, items of news about new institutions, dividends declared, securities to be issued, openings for new banks, and general discussions of financial subjects bearing upon Southern matters.

Review of the Baltimore Market.

Office MANUFACTURERS RECORD,

Baltimore, Md., June 28.

The Baltimore stock market seems to be affected by summer dullness, for there was comparatively little doing during the past week, with the exception of some improvement in prices of United Railways issues.

In the trading United common sold from 18 1/2 to 19 1/2; do. income bonds, 64 to 64 1/2, reacting to 64 1/2; do. funding 5s, 87 1/2 to 88; do. do. scrip, 87 to 88; United 4s, 86 1/2 to 86; United Electric Light & Power 4 1/2s, 93 1/2; Consolidated Gas, Electric Light & Power common, 92; do. preferred, 90 1/4 to 90 3/4; do. 4 1/2s, 87 1/2 to 87; do. notes, 100; Consolidated Gas 4 1/2s, 97 1/2 to 97 3/4; Seaboard Air Line common, 26 to 26 1/4; do. preferred, 46 to 45 1/2; Seaboard Company common, 28 to 27 1/2; do. second preferred, 61 1/2; do. adjustment 5s, 79 1/2 to 79 3/4; Consolidated Cotton Duck, 3; do. preferred, 17 1/4; Mt. Vernon-Woodberry Cotton Duck 5s, 76 1/2 to 75 1/4; G. B. S. Brewing incomes, 5 1/2; do. 4s, 42 3/4 to 43 1/4.

Bank of Baltimore sold at 170; First National, 152; Farmers and Merchants', 53 1/4; Baltimore Trust, 170; Fidelity & Deposit, 151 1/4; Maryland Casualty, 90; American Bonding, 78 3/4 to 78 1/2.

Other securities were traded in thus: Charleston Consolidated Electric 5s, 97 1/2; Augusta & Aiken preferred, 72 to 73; Baltimore Electric 5s, stamped, 96 to 96 1/4; Norfolk Railway & Light 5s, 100 to 100 1/4; Roland Park Electric & Water 5s, 100; City & Suburban (Baltimore) 5s, 105 1/2; Norfolk & Portsmouth Traction 5s, 88 1/4 to 88; Northern Central Railway stock, 129 1/4 to 130 1/4; Atlantic Coast Line convertible debenture 4s, 90 1/4 to 100 1/4; Houston Oil preferred, 58 to 55; North Baltimore 5s, 110; Fairmont Coal 1st 5s, 97 1/4; Consolidation Coal, 104 1/4 to 104; do. first and refunding 5s, 96; Fairmont & Clarksburg Traction 5s, 101; Alabama Consolidated Coal & Iron 5s, 87 to 87 1/4; Detroit United 4 1/2s, 82; Atlantic Coast Line 4s, 95 3/4; Baltimore City 3 1/2s, 194, 93 1/2; Kansas City, Fort Scott & Memphis 4s, 81; Macon, Dublin & Savannah 5s, 98 1/4; Georgia & Florida 5s, 78 1/2; Maryland Electric 5s, 90; Baltimore City Passenger 5s, 100 1/4; do. 4 1/2s, 100; George's Creek Coal & Iron, 1; Lexington Railway 5s, 95 1/2; Norfolk Railway & Light stock, 25; Washington & Vandemere 4 1/2s, 95 1/2; Carolina Central 4s, 92 1/4; Western Maryland 4s, 87 1/4; Jamison Coal & Coke, George's Creek 5s, 93 1/2; Georgia & Alabama Consolidated 5s, 105 3/4; Pittsburg-Allegany Telephone 5s, 74 1/4.

SECURITIES AT BALTIMORE.

Last Quotations for the Week Ended June 28, 1911.

Railroad Stocks.	Par.	Bid.	Asked.
Atlantic Coast Line.....	100	129	130
Atlantic Coast of Conn.....	100	245	250
Charleston Consolidated.....	50	34	35
Fairmont & Clarks. Trac. Com.....	100	65	66
Fairmont & Clarks. Trac. Pfd.....	100	98	99
Georgia Sou. & Fla.....	100	35	36
Georgia Sou. & Fla. 1st Pfd.....	100	92	93
Georgia Sou. & Fla. 2d Pfd.....	100	75	76
Seaboard Co. Common.....	100	26 1/2	27 1/2
Seaboard Co. 1st Pfd.....	100	88	89
Seaboard Co. 2d Pfd.....	100	60 1/4	61 1/4
United Ryx. & Elec. Co.....	50	19 1/2	19 3/4
Virginia Ry. & Power Com.....	100	36	37

Bank Stocks.

Bank of Baltimore.....	100	166	170
Bank of Commerce.....	15	32 1/2	33 1/2
Citizens'.....	100	42	43
Farmers & Merchants'.....	49	53	54
First National.....	100	152	153 1/2
Merchants'.....	100	191	192
Western.....	20	41 1/2	42

Trust, Fidelity and Casualty Stocks.

American Bonding.....	50	78 1/2	79
Baltimore Trust.....	100	168	169
Fidelity & Deposit.....	50	151 1/4	152
Maryland Casualty.....	100	87 1/2	88
Maryland Casualty.....	100	87 1/2	88
Mercantile Trust & Deposit.....	50	149 1/2	150
U. S. Fidelity & Guaranty.....	100	163 1/2	167 1/2

Miscellaneous Stocks.

Ala. Con. Coal & Iron.....	100	40	41
Ala. Con. Coal & Iron Pfd.....	100	77	80
Con. Cotton Duck Common.....	50	3	3
Con. Cotton Duck Pfd.....	50	17	17
Con. Gas, Elec. Lt. & P. Com.....	100	91 1/4	92
Con. Gas, Elec. Lt. & P. Pfd.....	100	98 1/2	100
Consolidation Coal.....	100	103 1/2	105
G. B. S. Brewing Incomes.....	100	7 1/2	7 1/2
Mer. & Miners' Trans. Co.....	100	7 1/2	7 1/2

Railroad Bonds.

Atlantic Coast 1st 4s.....	95 1/4	95 1/2	96
Atlantic Coast Conv. Deben. 4s.....	99 1/2	99 1/2	100 1/4
At. Coast (Conn.) 4s, Cts. 5-20s.....	94	94 1/4	94 1/2
Atlantic Coast (Conn.) 4s, Cts. 5-20s.....	94	94 1/4	94 1/2
Balto. & Annapolis S. L. 5s.....	70	80	80
Brunswick & Western 4s.....	90	90	90
Carolina Central 4s.....	92 1/2	93	93 1/2
Charleston & West. Car. 5s.....	100 1/2	100 1/2	100 1/2
Coal & Coke Railway 5s.....	102	102	102
Coal & Iron Railway 5s.....	102	102	102
Florida Southern 4s.....	92 1/4	92 1/4	94
Georgia & Alabama 5s.....	105 1/2	105 1/2	106 1/2
Georgia & Florida 5s.....	77 1/2	77 1/2	78 1/2
Georgia, Car. & North. 1st 5s.....	105 1/2	105 1/2	106 1/2
Georgia South. & Fla. 1st 5s.....	105 1/2	105 1/2	106 1/2
Macon, Dublin & Savannah 5s.....	97 1/2	98 1/2	98 1/2
Maryland & Pennsylvania 4s.....	87	87	87
Potomac Valley 1st 5s.....	105	105	105 1/2
Augusta Railway & Electric 5s.....	111 1/2	111 1/2	112 1/2
Savannah, Fla. & West. 5s.....	122	126 1/2	126 1/2
Seaboard Air Line 4s.....	86 1/2	87 1/2	87 1/2
Seaboard 4s, stamped.....	86 1/2	87 1/2	87 1/2
Seaboard Adjustment 5s.....	79 1/2	79 1/2	79 1/2
Seaboard & Roanoke 5s.....	100	100 1/2	100 1/2
Seaboard & Roanoke 6s.....	100	100 1/2	100 1/2
Washington-Vandemere 4 1/2s.....	95 1/2	96 1/2	96 1/2
Western Maryland 4s.....	87 1/2	88	88

Street Railway Bonds.

Anacostia & Potomac 5s.....	101	101	101 1/2
Atlanta Con. Street Railway 5s.....	105	105 1/4	105 1/2
Augusta Railway & Electric 5s.....	102 1/2	103 1/2	103 1/2
Baltimore City Passenger 4 1/2s.....	100 1/4	100 1/4	100 1/4
Baltimore City Passenger 4 1/2s.....	100 1/4	100 1/4	100 1/4
Balto., Sp. Pl. & C. 4 1/2s.....	97	97 1/2	97 1/2
Baltimore Traction 1st 5s.....	107 1/2	107 1/2	107 1/2
Baltimore Traction (N. B.) 5s.....	109 1/2	110 1/2	110 1/2
Charleston City Railway 5s.....	102 1/2	103 1/2	103 1/2
City & Suburban 5s (Balto.).....	105 1/2	105 1/2	105 1/2
City & Suburban 5s (Wash.).....	102 1/2	103 1/2	103 1/2
Fairmont & Clarksburg Traction 5s.....	100 1/2	100 1/2	100 1/2
Lake Roland Elevated 1st 5s.....	85 1/2	85 1/2	85 1/2
Lexington Railway 1st 5s.....	98 1/2	98 1/2	98 1/2
Maryland Electric Railways 5s.....	98 1/2	98 1/2	98 1/2
Norfolk & Portsmouth Traction 5s.....	88	88 1/2	88 1/2
Norfolk Railway & Light 5s.....	100 1/4	100 1/4	100 1/4
Norfolk Street Railway 5s.....	105 1/2	107 1/2	107 1/2
Norfolk & Atlantic Terminal 5s.....	94 1/2	96	96
United Railways 1st 4s.....	85 1/2	86	86
United Railways Income 4s.....	64 1/2	64 1/2	64 1/2
United Railways Funding 5s.....	79 1/2	79 1/2	79 1/2

Miscellaneous Bonds.

Ala. Con. Coal & Iron 5s.....	86 1/2	87 1/2	87 1/2
Atlanta Gas 1st 5s.....	102 1/2	103	103 1/2
Baltimore Elec. 5s.....	85	85	85
Baltimore Elec. 5s, Stp.....	86 1/2	86 1/2	86 1/2
Consolidated Gas 5s.....	108 1/2	108 1/2	108 1/2
Consolidated Gas 4 1/2s.....	97 1/2	98	98
Con. Gas, Elec. Lt. & P. 4 1/2s.....	86 1/2	87	87
Consolidation Coal Ref. 4 1/2s.....	93 1/2	93 1/2	93 1/2
Fairmont Coal 1st 5s.....	97	97 1/2	97 1/2
G. B. S. Brewing 1st 4s.....	42 1/2	43 1/2	43 1/2
G. B. S. Brewing Income 5s.....	5	5 1/4	5 1/4
Maryland Steel Co. 5s.....	102	102	102
Mt. Vernon-Woodby Cot. Duck 5s.....	75 1/2	76	76
United Elec. Lt. & P. 4 1/2s.....	93 1/4	93 1/2	93 1/2

SOUTHERN COTTON-MILL STOCKS.

Quotations Furnished by William S. Glenn, Broker, Spartanburg, S. C., for Week Ending June 26.

Abbeville Cotton Mills (S. C.).....	Bid.	Asked.
Aiken Mfg. Co. (S. C.).....	75	75
American Spinning Co. (S. C.).....	190	190
Anderson Cotton Mills (S. C.).....	43	43
Anderson Cot. Mills (S. C.) Pfd.....	100	100
Arcadia Mills (S. C.).....	98	98
Arkwright Cotton Mills (S. C.).....	99	100
Augusta Factory (Ga.).....	40	40
Avoidale Mills (Ala.).....	116	116
Beltion Mills (S. C.).....	130	130
Brandon Mills (S. C.).....	95	103
Brogan Mills (S. C.).....	90	90
Cannon Mfg. Co. (N. C.).....	135	135
Cabarrus Cotton Mills (N. C.).....	130	134
Chadwick Mfg. Co. (N. C.) Pfd.....	100	100
Chiquola Mfg. Co. (S. C.).....	170	170
Clifton Mfg. Co. (S. C.) Pfd.....	97	97
Clinton Cotton Mills (S. C.).....	120	120
Columbus Mfg. Co. (Ga.).....	93	93
Courtney Mfg. Co. (S. C.).....	100	100
Dallas Mfg. Co. (Ala.).....	99	99
Darlington Mfg. Co. (S. C.).....	90	90
D. E. Converse Co. (S. C.).....	90	90
Drayton Mills (S. C.).....	96	100
Eagle & Phenix Mills (Ga.).....	117	117
Easley Cotton Mills (S. C.).....	162	175
Enoree Mfg. Co. (S. C.).....	50	65
Enoree Mfg. Co. (S. C.) Pfd.....	90	100
Enterprise Mfg. Co. (Ga.).....	65	75
Exposition Cotton Mills (Ga.).....	200	200

Gaffney Mfg. Co. (S. C.).....	60	65
Gainesville Cotton Mills (Ga.).....	72	80
Glenwood Mills (S. C.) Cotton.....	130	150
Gluck Mills (S. C.).....	99	99
Granby Cot. Mills (S. C.) 1st Pfd.....	35	44
Granville Mfg. Co. (S. C.).....	140	145
Greenwood Cotton Mills (S. C.).....	57	60
Grendel Mills (S. C.).....	90	100
Hartsville Cotton Mill (S. C.).....	160	175
Henrietta Mills (N. C.).....	160	175
Imman Mills (S. C.).....	100	105
King Mfg. Co., J. P. (Ga.).....	80	85
Lancaster Cotton Mills (S. C.).....	130	130
Lancaster Cot. Mills (S. C.) Pfd.....	97	100
Langley Mfg. Co. (S. C.).....	104	112
Laurens Mills (S. C.).....	127	135
Limestone Mills (S. C.).....	155	160
Lockhart Mills (S. C.) Pfd.....	90	95
Lockhart Mills (S. C.) Pfd.....	90	100
Loray Cotton Mills (N. C.) Pfd.....	95	95
Mariboro Cotton Mills (S. C.).....	90	95
Mills Mfg. Co. (S. C.).....	102	102
Molokoh Mfg. Co. (S. C.).....	95	106
Monaghan Mills (S. C.).....	100	100
Monarch Cotton Mills (S. C.).....	106	106
Newberry Cotton Mills (S. C.).....	125	130
Ninety-Six Cotton Mills (S. C.).....	130	150
Norris Cotton Mills (S. C.) Pfd.....	121	130
Olympia Cotton Mills (S. C.).....	90	90
Orr Cotton Mills (S. C.).....	92	95
Pacolet Mfg. Co. (S. C.).....	90	90
Pacolet Mfg. Co. (S. C.) Pfd.....	94	100
Parker Common.....	50	50
Parker Preferred.....	85	85
Peizer Mfg. Co. (S. C.).....	163	163
Piedmont Mfg. Co. (S. C.).....	175	177
Pos Mfg. Co., F. W. (S. C.).....	110	125
Saxon Mills (S. C.).....	120	120
Sibley Mfg. Co. (Ga.).....	65	68
Spartan Mills (S. C.).....	120	130
Trion Mfg. Co. (Ga.).....	130	130
Tucapau Mills (S. C.).....	210	250
Union-Buffalo (S. C.) 1st Pfd.....	75	75
Union-Buffalo (S. C.) 2d Pfd.....	14	14
Victor Mfg. Co. (S. C.).....	110	114
Warren Mfg. Co. (S. C.).....	90	95
Warren Mfg. Co. (S. C.) Pfd.....	105	105
Washington Mills (Va.).....	106	106
Washington Mills (Va.) Pfd.....	106	110
Whitney Mfg. Co. (S. C.).....	110	110
Wicacaw Mills (N. C.).....	135	135
Woodruff Cotton Mills (S. C.).....	110	115
Woodside Cotton Mills (S. C.).....	95	100
Watts Mills (S. C.).....	80	90
Williamston Mills (S. C.).....	120	125

FINANCIAL CORPORATIONS.

Ark., Delight.—Official: Bank of Delight is organized under new charter. A. E. Westbrook is president; S. L. Blakely and C. E. Reid, vice-presidents, and C. A. Kizia, cashier, the other directors being A. B. Banks and J. F. Blakely.

Ark., Harrison.—The Farmers' Bank of Harrison is reported to have filed articles of incorporation; capital \$50,000; incorporators, W. H. Price, Joe B. Wilson and James B. Currutt.

Ark., Little Rock.—The Central Life Insurance Co. is reported to have filed articles of incorporation; capital \$100,000. Among the incorporators are Thomas H. Roger, W. H. Gregory and A. J. Brand.

Ark., Rison.—Dispatches state that the new bank recently organized with \$25,000 capital is to be known as the Merchants & Planters' Bank. A. B. Banks, president; W. B. Moore, vice-president; J. B. Searcy, secretary and treasurer, and J. T. Renfrow, cashier.

Ark., Siloam Springs.—The Ozark Trust Co. will, it is stated, soon begin business with \$50,000 capital. C. A. Bonds, president, and J. L. Lefkar, cashier, both of Kansas City.

Ark., Warren.—The Bradley County Abstracting & Guaranty Co. of Warren is incorporated; capital \$5,000; incorporators, S. B. Meek, E. M. Meek, F. L. Purcell and E. G. Purcell.

Fla., Orlando.—People's National Bank of Orlando approved; capital \$50,000; incorporators, J. C. Patterson of Orlando, Fla.; J. N. McElroy, C. A. Campbell, W. P. Watson, C. Holt and C. E. Saunders.

Ga., Atlanta.—The Ogilthorpe Fire Insurance Co., capital \$100,000, is reported chartered. Incorporators: Robert N. Hughs, M. E. Yates, E. N. O'Beirne, W. B. Stovall, A. P. Stewart, D. W. Matthews and Alex. W. Smith.

Ga., Atlanta.—Official: Atlanta Loan & Savings Co., a new concern, is incorporated; capital \$50,000 minimum, \$1,400,000 maximum; began business June 9; incorporators, W. Woods White, V. H. Kriegshaber, T. B. Sawtell, B. L. Willingham, E. C. Callaway, A. L. Anderson and H. N. Randolph, all of Atlanta.

Ga., Bremen.—Reported that a new bank is being organized with \$25,000 capital.

Ga., Buchanan.—A dispatch says that a new bank is being organized with \$25,000 capital, much of which is already subscribed.

Ga., Crawford.—A dispatch says that plans are in progress to organize another bank, and much of the capital is subscribed.

Ga., Macon.—Avera Loan & Investment Co. has applied for charter; capital \$25,000; petitioners, J. I. Denton, J. M. Dasher and A. O. Chapman.

Ga., Milner.—Reported chartered: The Farmers' Bank of Milner, capital \$25,000. Incorporators: J. M. F. Barron, W. N. Ethridge, R. A. Martin, L. R. Burt, J. C. Baird, W. R. S. Mann, B. F. Cook, P. W. Ethridge,

S. J. Childers, L. Holmes, E. G. Gilmore, James M. Sims, F. F. Sims, E. M. Duke and others.

Ga., Waynesboro.—Official: The Waynesboro Insurance Agency is organized by R. C. Neely, J. H. Whitehead, N. P. Thomas and others. The principal business will be writing fire insurance.

Ga., Norcross.—The Bank of Gwinnett, capital \$25,000, will, it is reported, begin business about August 15 with S. T. McElroy, president; J. W. Haynie, vice-president, and W. S. Witham of Atlanta, financial agent. Directors: S. T. McElroy, J. W. Haynie, H. M. Lively, S. Cain, E. C. Settle and J. F. Johnson. Cashier not yet elected.

Ky., Centertown.—A new State bank is reported chartered at Centertown, Ky., with \$15,000 capital.

Md., Baltimore.—Russia Savings and Loan Association incorporated; capital stock \$10,000; incorporators, Simon Shapiro, Jacob Patlock, Max Kozlowsky and Morris Colman.

Md., Baltimore.—The Baltimore Mortgage Co. incorporated; capital \$3000. Incorporators: Laurie H. Riggs, Clyde V. Matthews and Spencer M. Clark.

Mo., Kansas City.—Reported chartered: The Commonwealth National Bank; capital \$250,000. G. M. Smith, president; J. E. Hutt, vice-president, and L. C. Smith, cashier. Business has begun.

Mo., St. Louis.—The Easton-Taylor Trust Co., according to press dispatches, will begin business July 8 at 474 Easton Ave. with \$100,000 capital; Charles Thuermer, president; John R. Lanigan, vice-president and treasurer; C. D. Bolln, vice-president; George P. Dougherty, secretary and counsel, and John Rothenheiser, assistant treasurer; E. N. Lanigan, real estate officer.

Mo., West Plains.—The Farmers' Savings Bank of West Plains, capital \$35,000, is reported incorporated by Hal Woodsides, T. H. Butcher, S. W. Russell, Will H. Zorn and others, all residents of West Plains and Howell county.

charter; incorporators, J. Farrar, J. T. Bickley, J. Atwood, T. L. Bobo, R. A. Lock and others.

Tenn., Nolita.—Official: The Bank of Nolita incorporated; capital \$12,000. Business is to begin about September 1 with J. L. Burns, president, and H. M. Willson, vice-president, both of Nolita, Tenn.; I. F. Robertson, cashier, Bumpus Mills, Tenn. Directors: J. C. Cate, W. H. Buttram, W. L. Forrest, A. W. Weeks and H. E. Parson.

Tenn., Riceville.—Official: The Riceville Bank of McMinn county chartered; capital \$10,000. Incorporators: T. L. Ware, S. T. Pootco, E. W. Oliphant, W. J. McKamy and W. W. Brown of Riceville. Business is to begin September 1.

Tenn., Slayden.—The Bank of Slayden, recently incorporated, is reported to have begun business with officers thus: J. M. Ferguson, president; R. J. Waynick, vice-president; J. H. Fall, cashier; capital \$12,500.

Tex., Dallas.—The Oriental Investment Co., capital \$25,000, is reported chartered. Incorporators: G. A. Levi, J. B. Cranfill and J. K. Hexter.

Tex., Electra.—Official: First National Bank of Electra, a new concern, is chartered; capital \$25,000; begins business in a few days; president, R. E. Huff of Wichita Falls, Tex.; cashier, Will W. Brown of Electra, Tex.

Tex., Fort Worth.—The Commonwealth Bonding & Casualty Co. is reported to have begun business in the Flatiron Bldg. John Scharbauer is president and M. H. Mills, secretary.

Tex., Gladewater.—The L. J. Everett Guaranty Bank is reported to have begun business with L. J. Everett, president, and H. G. Lawrence, cashier.

Tex., Heath.—First Guaranty State Bank of Heath is reported licensed; capital \$10,000.

Tex., Houston.—The American Surety & Casualty Co. of Houston, capital \$300,000, with a surplus of approximately \$100,000, is reported organized with directors thus: Jonathan Lane, president; S. F. Carter, first vice-president; G. C. Gifford, second vice-president; John B. Peyton, third vice-president; William Strauss, manager; Dr. N. R. Lynd, secretary; Dr. A. R. Shearer of Chambers county, Dr. O. M. Tinsley of Walker county, C. F. Hellmuth of Austin county, F. G. Hillje of Bexar county, George B. Culver of Matagorda county, S. C. Red and Jake Walters of Harris county. Fred L. Tesch is treasurer.

Tex., Houston.—The American Trust Co., capital \$500,000, expects to begin business about July 1. Mona J. Moore is president.

Tex., Mabank.—Chartered: Farmers' Guaranty State Bank of Mabank; capital \$10,000; incorporators, John T. Pate, W. F. Zinnecker and John L. Wren.

Va., Charlottesville.—The Charlottesville Savings Bank is reported to have begun business with directors thus: Henry M. Gleason, president; Thomas S. Keller, vice-president; E. E. Dinwiddie, secretary and treasurer; T. E. Powers, F. B. Peyton, W. E. Morris, M. Kaufman and H. A. Dinwiddie.

Va., Elba.—People's Bank of Elba incorporated; capital \$25,000 maximum, \$30,000 minimum. R. T. Ramsey is president; O. L. Ramsey, first vice-president; C. R. Haynes, second vice-president; R. W. Bennett, third vice-president; C. E. Shelton, secretary, all of Elba, Va.

W. Va., Anawalt.—The Bank of Anawalt is reported incorporated with \$25,000 capital by Edward O'Toole, Howard N. Eavenson, R. V. Shanklin, W. B. Hensel and J. D. Perry of Gary, W. Va.

W. Va., Weirton.—Official: Bank of Weirton, a new institution, incorporated; capital \$35,000; will begin business about October 1; incorporators, E. T. Weir, D. M. Weir, Cyrus Ferguson, Everett Ferguson and Nelson D. Miller.

NEW SECURITIES.

Ala., Anniston.—The Road and Revenue Commissioners of Calhoun county are contemplating an issue of \$300,000 of highway improvement bonds.

Ala., Dothan.—City Council has passed order for bond election of \$75,000 for water and light plant.

Ala., Hartsells.—Official: City will probably sell privately \$28,000 of 5 per cent. water, electric light and sewer bonds voted August 8, 1910. Xaylor A. Kramer is City Engineer, Magnolia, Miss.

Ala., Huntsville.—Official: Bids will be received until July 10 for \$50,000 of Madison county 4½ per cent. refund road bonds, 20-30-year; denomination \$500. W. T. Lawler, Huntsville, Ala., is official in charge.

Ala., New Decatur.—Official: July 11 an election is to be held to vote on \$20,000 of 5 per cent. refunding and improvement bonds; denomination \$500. John Patterson is Mayor.

Fla., St. Petersburg.—Bids will be received until 8 P. M. August 3 for \$100,000 of 6 per cent. improvement bonds; denomination \$1000. Address W. F. Divine, City Clerk.

Ga., Albany.—Official: Voted June 12: \$50,000 of gas, \$12,500 of sewer, \$12,500 of paving, \$10,000 of park, \$10,000 of cemetery maintenance and \$5000 of street opening 5 per cent. 30-year bonds; denomination \$1000. Bonds have not yet been validated.

Ga., Ashburn.—Reported voted: \$15,000 of sewer and \$5000 of light 5 per cent. bonds.

Ga., Colquitt.—Official: J. H. Hillman & Co., Atlanta, Ga., purchased on June 1 the \$22,000 of 5 per cent. 30-year light, water and school bonds; denomination \$500; dated June 1, 1911.

Ga., Cuthbert.—Official: All bids received June 21 for \$20,000 of 5 per cent. 30-year water and light improvement bonds were rejected, and new bids will be opened by the City Council the first Monday night in July. Robert L. Moye is Mayor.

Ga., Dawson.—The Dawson National Bank of Dawson is reported to have purchased at \$161.50 premium \$12,500 of 5 per cent. school bonds. R. E. Bell is City Clerk.

Ga., Moultrie.—An official letter says Colquitt county has no new bond issue.

Ga., Perry.—Official: July 1 an election is to be held to vote on \$6000 of 5 per cent. 10-year electric-light bonds; denomination \$500; dated about July 3, 1911. F. M. Honser is Mayor.

Ga., Social Circle.—Reported defeated: \$5000 of 5 per cent. 20-year school bonds.

Ga., Vienna.—Reported that an election is soon to be held to vote on school-building bonds.

Ga., Washington.—Official: An election is to be held July 14 on \$30,000 of 5 per cent. 30-year bonds for rebuilding electric-light plant; denomination \$1000. E. A. Barnett is official in charge.

Ga., Winder.—Official: Voted June 15: \$21,000 of 5 per cent. 30-year sewerage bonds; denomination \$500; dated July 1. No steps will be taken toward sale of bonds until they are validated. H. N. Rainey, Jr., is clerk.

Ky., Jeffersonville.—All bids received May 27 for \$60,000 of 4 per cent. judgment funding bonds are reported rejected.

La., Abbeville.—Reported voted: \$19,000 of bonds of Isle Maronne drainage district.

La., Conshatta.—Official: Bids will be received at any time for \$25,000 of 5 per cent. bonds of School District No. 1 of Red River parish; dated June 15, 1911; maturity, serially from June 15, 1916, to June 15, 1941; denomination \$5000. Address John I. Teer, Conshatta.

La., Kentwood.—The election to vote on \$50,000 of 25-year water-works and sewerage bonds will, it is stated, be held August 1.

La., Plaquemine.—Cutter, May & Co. of Chicago are reported to have purchased at par and interest, less \$1200, the \$60,000 of 5 per cent. bonds of Iberville Parish School District.

La., Shreveport.—The city has sold, it is announced, \$250,000 of 4½ per cent. paying bonds to the Commercial National Bank. The sale was made at a premium of \$166.66, and accrued interest from May 1.

Md., Frederick.—Bids will be received by the Mayor and Aldermen until 7.30 P. M. July 19 for \$30,000 of 4½ per cent. 10-20-year water bonds; denomination \$500 and \$1000.

Miss., Aberdeen.—Reported that a vote will be taken July 7 upon the proposition to issue \$100,000 of good-roads bonds for the First Supervisors' District of Monroe county.

Miss., Bay St. Louis.—The City Council is reported to have authorized an issue of \$50,000 of 5 per cent. 20-year bonds for additional school building.

Miss., Hernando.—Reported that De Soto county will issue \$25,000 of bonds for bridges.

Mo., Belton.—Reported voted: \$10,000 of street-improvement bonds.

Mo., Cabool.—It is proposed to hold an election, it is reported, to vote on \$9000 of water-works bonds.

Mo., Carrollton.—Reported that bids will be received by F. W. Gibson, treasurer, until 2 P. M. July 6 for \$230,000 of 6 per cent. bonds of Drainage District No. 3; dated September 1, 1911; maturity September 1, 1913 to 1939, inclusive.

Mo., Carrollton.—Official: \$7500 of 4½ per cent. five-year school building addition bonds, denomination \$500, have been sold at par to the First National Bank; date August 1, 1911,

and may be called at any interest period. E. E. Farnham, secretary, is officer in charge.

Mo., Independence.—Reported defeated: \$40,000 of bridge and culvert and \$10,000 of market bonds.

Mo., Kansas City.—Bids will be received, it is reported, until 3 P. M. June 26 by the Park Board for \$73,000 of 6 per cent. park certificates; denomination \$1000.

Mo., Maryville.—Official: Bond issue defeated. A. S. Roby is Mayor.

Mo., New Madrid.—Bids will be received until 8 P. M. July 3 by W. H. Copeland, City Clerk, for \$5000 of 5 per cent. trunk sewer bonds; denomination \$1000; dated July 1, 1911; maturity July 1, 1931; redemption, optional after July 1, 1916.

Mo., St. James.—Official: \$3000 of 5 per cent. 20-year school bonds have been purchased at par by local parties; denomination \$1000; dated June 1, 1911.

Mo., St. Louis.—Official: "It has not been definitely determined at this date (June 21) to issue any new bonds. The proposition will be submitted to the voters, I believe, next fall." This refers to the report that \$2,250,000 of municipal bridge bonds would be voted upon November 1.

Mo., Tarkio.—Little & Hays Investment Co. of St. Louis is reported to have purchased at \$451 premium \$26,000 of 5 per cent. school district high-school bonds.

Mo., Webb City.—Official: Voted June 20: \$20,000 of 4 per cent. 20-year bonds to furnish high-school and repair ward building; denomination \$1000; dated July 15, 1911; maturity July 15, 1931. Bids for same will be opened July 7. Address J. T. Aldridge, secretary School Commissioners.

N. C., Burlington.—Reported that \$25,000 of 5 per cent. 30-year street and sidewalk bonds have been purchased by Seasongood & Mayer of Cincinnati.

N. C., Carthage.—Official: No bonds will be issued by Moore county this year. This refers to a recent report.

N. C., Greensboro.—Steps are reported being taken to offer for sale \$30,000 of school bonds.

N. C., Morehead City.—C. H. Coffin of Chicago is reported to have purchased at \$121 premium \$6000 of 6 per cent. 25-year school district building bonds.

N. C., Sanford.—Reported that bids will be received until noon July 3 by T. M. Cross, chairman Board of Commissioners, for \$15,000 of 5 per cent. 30-year road-improvement bonds.

N. C., Shelby.—Dispatches state that \$25,000 of 5 per cent. Cleveland county bridge bonds have been purchased by C. A. Webb & Co. of Asheville at par.

N. C., Warsaw.—Official: Bids will be received until 1 P. M. July 15 for \$10,000 of 6 per cent. school bonds; dated July 1, 1911; maturity January 1, 1916 to 1926; denomination \$1000. Address H. L. Stevens, chairman Board of Trustees, Warsaw.

N. C., Warsaw.—Official: Bids will be received until 11 A. M. July 21 for \$30,000 of 5 per cent. 31-year good-roads bonds of Warsaw township; denomination \$1000. Joseph E. Johnson, secretary of the Board of Good Roads Trustees, may be addressed at the Bank of Warsaw.

N. C., Wilmington.—Official: Bids will be received until 3 P. M. July 3 by D. McEachern, chairman of the Board of Commissioners of New Hanover County, Wilmington, N. C., for \$50,000 of 4½ per cent. semi-annual 25-year road and bridge bonds; denomination \$100 and \$1090; bonds dated July 1.

Okla., Chandler.—Official: A. J. McMahan, Oklahoma City, purchased June 6 the \$10,000 of 6 per cent. water-works extension bonds; denomination \$1000; maturity 1931. J. Bart Foster is City Clerk; A. B. Oleson, Mayor.

Okla., Comanche.—Official: Sealed bids will be received until 5 P. M. June 26 by Roy J. Minton, City Clerk, for \$15,000 of 6 per cent. 30-year water-works extension and electric-light plant bonds.

Okla., Dewey.—Official: F. R. Stone, contractor for the work, purchased at private sale on June 22 the \$40,000 of water-works bonds. J. W. Green is Town Clerk.

Okla., Heavener.—Speer & Dow of Fort Smith are reported to have been awarded \$8000 of 6 per cent. building bonds of Le Flore county school district No. 3.

Okla., Maxwell.—Reported that \$1500 of 6 per cent. bonds of Pontotoc county school district No. 7 have been purchased by Speer & Dow of Fort Smith.

Okla., McAlester.—Official: \$80,000 of 5 per cent. 25-year water-extension bonds, denomination \$1000, sold to Well, Roth & Co. of Cincinnati, O., at par and interest, the city to pay cost of printing bonds and \$750 attor-

neys' fees; bonds dated June 1. Wallace Bond is Commissioner of Finance and J. M. Gannaway City Clerk.

Okla., Oklahoma City.—Official: M. L. Turner, Oklahoma City, has been awarded at \$239,911.51 the \$235,000 of 5 per cent. 20-year school bonds offered June 15. Gus A. Elbow is Secretary.

Okla., Snyder.—Reported sold: \$40,000 of water and light bonds.

Okla., Tecumseh.—Reported that sealed bids were received by the Pottawatomie County Treasurer until 1 P. M. June 26 for \$50,000 of 5 per cent. semi-annual drainage bonds.

Okla., Vian.—Speer & Dow of Fort Smith are reported to have been awarded \$20,000 of 6 per cent. water bonds.

Okla., Wainwright.—Speer & Dow of Fort Smith are reported to have purchased at par \$12,000 of 6 per cent. 20-year bonds of school district No. 56.

S. C., Clinton.—Reported that all bids received May 17 for the \$55,000 of 5 per cent. 30-year water and sewer bonds were rejected.

S. C., Ehrhardt.—Notice is given that an election is to be held July 5 to vote on \$10,000 of bonds of Ehrhardt School District No. 22: R. W. D. Rowell, S. G. Mayfield and J. H. A. Carter, members of Board of Education of Bamberg county at Bamberg, S. C.

S. C., McBee.—Reported voted: Water-works bonds.

S. C., St. Matthews.—A dispatch says that \$20,000 of St. Matthews bonds have been sold to R. M. Marshall & Bro. of Charleston, S. C., at a premium of \$425.

S. C., Timmonsville.—An official letter confirms the sale of \$350,000 of 5 per cent. 40-year water and drainage bonds; denomination \$500.

Tenn., Brownsville.—Official: Bids will be received until July 10 for \$40,000 of 5 per cent. 30-year semi-annual street-improvement bonds; denomination \$500 and \$1000. J. O. Bomer, S. F. Thomas and R. M. Chambliss are committee.

Tenn., Butler.—Official: D. R. Stout, Recorder, Butler, purchased on June 20 the \$1000 of 6 per cent. 20-year school bonds; denomination \$100; J. E. Reese is Mayor.

Tenn., Chattanooga.—Official: Bids will be received until 3 P. M. July 12 by T. C. Thompson, Mayor, for \$45,000 of 4½ per cent. 30-year paving bonds; dated January 1, 1911; denomination \$1000.

Tenn., Humboldt.—Official: \$12,000 of 5½ per cent. 30-year floating-debt funding bonds, denomination \$500, were voted June 14; date of issue not fixed. C. W. Hooks, Mayor, or H. J. Foltz, Secretary, may be addressed.

Tenn., Jackson.—Reported that an election is to be held July 25 to vote on \$100,000 of bonds in aid of the New Orleans, Mobile & Chicago Railroad.

Tenn., Lenoir City.—Reported defeated: \$40,000 of water-works bonds.

Tenn., McKenzie.—The New First National Bank of Columbus is reported to have been awarded \$40,000 of 6 per cent. 20-year water, light and street bonds at \$87 premium.

Tenn., Memphis.—Official: The \$1,061,000 of 4½ per cent. street-improvement and school bonds will not be sold for a period of about 45 days. C. M. Bryan is City Attorney.

Tex., Andrews.—Andrews county is reported to have sold \$8000 of 5 per cent. 10-20-year courthouse bonds.

Tex., Austin.—Bonds are approved thus: \$4000 Atlanta 4½ per cent. 10-40 water-works; \$8000 Sanger 5 per cent. 5-20 school; \$3000 Grimes county 5 per cent. 10-20 school; \$2400 Houston county 5 per cent. 20-year school; \$1200 of 10-20-year District No. 11; \$9500 of 10-40-year District No. 20 and \$4700 of 5-20-year District No. 12 5 per cent. Galveston county school bonds; \$1,250,000 of Harris county bonds for deepening Buffalo Bayou channel.

Tex., Beaumont.—An election is to be held, it is reported, to vote on \$25,000 of school building, \$50,000 of sewer, \$15,000 of jail bonds, \$60,000 of park, \$25,000 of paving and \$25,000 of abattoir bonds. E. A. Fletcher is Mayor.

Tex., Bellville.—A dispatch says that the \$50,000 of road bonds of Precinct No. 1, Austin county, have been approved and will soon be offered.

Tex., Bryan.—Dispatches state that an election is soon to be held in Brazos county to vote on road bonds.

Tex., Burke.—Reported sold: \$3500 of independent school district bonds.

Tex., Centerville.—Reported that on July 27 an election will be held to vote on \$15,000

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of road bonds of the territory, including Centerville, Robbins and Concord.

Tex., Chapin.—Reported that the Llano-Grande improvement district has been formed and will issue \$150,000 of bonds to make improvements preventing damage from flood water.

Tex., Corpus Christi.—Reported that an election is to be held July 18 to vote on \$50,000 of independent school district bonds.

Tex., Dallas.—Official: \$5000 of 4½ per cent. street-improvement bonds are being offered; maturity 1950; denomination \$1000. Address A. B. Wood, 211 22d St., Galveston.

Tex., Denton.—July 23, it is reported, an election is to be held to vote on \$75,000 of Lewisville Road District, Denton county, bonds.

Tex., De Soto.—Reported defeated: \$10,000 of schoolhouse bonds.

Tex., El Paso.—An official letter says that the Mayor will perhaps issue proclamation calling a bond election within 30 or 60 days. C. W. Fassell is City Clerk.

Tex., Galveston.—All bids received June 19 for the \$500,000 of 5 per cent. 20-40-year Galveston county causeway bonds are reported to have been rejected.

Tex., Gilmer.—Reported that \$3000 of 5 per cent. 5-10-year bonds of Common School District No. 15, Upshur county, have been awarded at par to the First National Bank of Gilmer.

Tex., Groveton.—Reported voted: Good-roads bonds.

Tex., Henrietta.—An election is to be held July 15, it is reported, to vote on \$18,000 of bonds for building dam across Little Wichita River.

Tex., Hillsboro.—July 5, it is reported, an election is to be held to vote on \$10,000 of refunding bonds.

Tex., Houston.—Dispatches state that bids are about to be asked for \$1,250,000 of 4½ per cent. 10-40-year Harris county bonds for deepening Buffalo Bayou channel.

Tex., Jewett.—An election is reported ordered for Justice precinct No. 4, Jewett, to vote on \$25,000 of road bonds.

Tex., Ledbetter.—Official: July 22 an election is to be held to vote on \$600 of 5 per cent. 10-20-year bonds of Ledbetter independent school district No. 2, Fayette county; denomination \$100. Address C. W. Sanders, president, and L. C. Rummel, secretary.

Tex., Olney.—Official: Voted May 27: \$12,500 of 5 per cent. 40-year water-works bonds; denomination \$500; dated July 1, 1911. Address M. P. McCracken.

Tex., Orange.—Reported that Orange county has disposed of \$43,000 of 5 per cent. 10-40-year bonds for completion of Sabine-Neches Canal.

Tex., Palestine.—Reported voted: \$150,000 of bonds of Precinct No. 1, Anderson county.

Tex., Palacios.—Reported that the water-works bonds recently voted amount to \$18,000.

Tex., Shiner.—July 18, it is reported, an election is to be held to vote on \$12,000 of bonds of Shiner Independent School District, Lavaca county.

Tex., Stiles.—Press dispatches state that \$20,000 of 4 per cent. 10-40-year Reagan county courthouse bonds have been awarded to the contractor, and they can now be purchased for \$18,000.

Tex., Shiner.—Reported sold: \$5000 of 5 per cent. 5-20-year water bonds.

Tex., Waco.—Official: Bids will be opened July 10 for \$100,000 of 5 per cent. 10-40-year McLennan county bonds; denomination \$1000; dated July 10, 1911. Address Tom L. McCullough, County Judge.

Tex., Wichita Falls.—About July 22, it is reported, an election will be held to vote on \$32,500 of street-improvement bonds.

Tex., Winfield.—Reported sold: \$8000 of 5 per cent. independent school district bonds.

Tex., Winters.—Dispatches state that \$30,000 of 5 per cent. 30-40-year water-works bonds are still being offered.

Va., Alexandria.—Reported that \$50,000 of 4 per cent. street-improvement bonds have been authorized by the City Council.

Va., Boydton.—Official: Voted June 17: \$250,000 of 5 per cent. 24-year school district bonds of Mecklenburg county; denomination \$1000; officials in charge, W. H. Ryland, Dockery, Va.; L. H. Hayes, Union Level, Va.; L. S. Warren, Bracey, Va.; L. J. Peoples, Keats, Va.; H. F. Hutcheson, county clerk, Boydton, Va.

Va., Christiansburg.—Official: \$40,000 of 5 per cent. 15-30-year water-works bonds, denomination \$500, have been sold to Ullin & Co. of Chicago at par.

Va., Danville.—Press dispatches state that an election is to be held to vote on \$150,000 of electric-light and \$30,000 of street-paving bonds.

Va., Graham.—Reported that bids will be received at any time for \$50,000 of 5 per cent. 30-year school, water, street and sewer bonds.

Va., Newport News.—Reported defeated: \$150,000 of light bonds.

Va., Salem.—Notice is given that an election is to be held July 18 to vote on \$17,000 of 5 per cent. bonds of Salem School District No. 5. Chas. D. Denit is clerk.

W. Va., Huntington.—Official: Bids will be received until July 11, inclusive, for \$300,000 of 4½ per cent. 20-30-year Cabell county road-improvement bonds. Address Clerk County Court.

W. Va., Parkersburg.—Dispatches state that all bids received June 20 for the \$180,000 of Wood county road district bonds were rejected.

W. Va., Princeton.—Official: Bids will be received until noon June 30 for \$50,000 of 6 per cent. 15-year bonds of the Board of Education of East River District; denomination \$1000. Chas. B. Hedrick is secretary of the board.

W. Va., Ronceverte.—June 30, it is stated, an election is to be held to vote on \$16,500 of street-improvement bonds. Robert M. Bell is Mayor.

A. B. Wood, Galveston, Tex., is offering for sale \$5000 of 4½ per cent. street-improvement bonds of Dallas, Tex. Further particulars will be found in the advertising columns.

At Waco, Tex., bids will be opened on July 10 for \$100,000 of 5 per cent. 10-40-year McLennan county road bonds. Further particulars will be found in the advertising columns.

At Warsaw, N. C., bids will be received until 1 P. M. July 15 for \$10,000 of 6 per cent. 5-15-year school bonds. Further particulars will be found in the advertising columns.

At Charlotte Courthouse, Va., bids will be received until noon July 15 for \$60,000 of 4½ per cent. 20-40-year Charlotte county courthouse bonds. Further particulars will be found in the advertising columns.

At Rocky Mount, Va., bids will be opened July 25 for \$50,000 of 5½ per cent. water-works, sewerage and electric-light bonds. Further particulars will be found in the advertising columns.

FINANCIAL NOTES.

At the annual convention of the Mississippi Bankers' Association, held at Greenwood May 10-11, the following officers were elected for the ensuing year: President, Hon. C. H. Williams of Yazoo City; vice-president, Dr. O. B. Quinn of McComb City; secretary and treasurer, R. Griffith of Vicksburg; executive committee for 1912, C. H. Williams, O. B. Quinn, B. W. Griffith, W. M. Andersen, G. T. Heard, R. L. Smallwood, T. R. Henderson, Walker Broach, P. H. Saunders, Thad B. Lampton, J. T. Flournoy and Dr. G. P. Hawes.

At the annual meeting of the Florida Bankers' Association, held at Ocala May 10-11, the following officers were elected for the ensuing year: F. F. Bardin, Lake City, president; T. L. Clarke, Monticello, first vice-president; Carl Warfield, Fernandina, second vice-president; S. A. Woods, Deland, third vice-president; J. M. Harvey, Tampa, fourth vice-president; E. D. Walter, Jacksonville, fifth vice-president; G. R. DeSausure, Jacksonville, secretary and treasurer; executive committee, J. A. Griffin, Tampa; E. Mizell, Fernandina; A. F. Perry, Chas. Chestnut and H. G. Ald, Jacksonville.

The Interstate Life & Accident Co. of Chattanooga, Tenn., according to press dispatches, has purchased the Employers' Bonding Co. of Knoxville.

At the annual meeting of the Florida Loan Association of North Carolina, held at Newbern June 21, the following officers were elected for the ensuing year: E. L. Keelsor of Charlotte, president; G. A. Pollin of Winston-Salem, first vice-president; Mr. Alexander Webb of Raleigh, second vice president, and Mr. John Dunn of this city, third vice-president.

Bond Sale

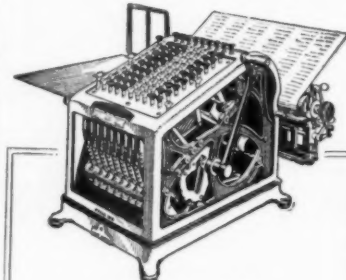
The undersigned committee offers for sale \$50,000 town Rocky Mount, Virginia, water-works, sewerage and electric-light 5½ bonds, coupon in form.

Bids to be opened July 25, 1911.
For statement or other information write
C. S. GREER, Mayor;
W. A. BEICHER, Recorder;
N. P. ANGLE,
Committee.

OFFICE OF VIRGINIA-CAROLINA CHEMICAL COMPANY.

Richmond, Va., June 13, 1911.
DIVIDEND NO. 63.

The Board of Directors have this day declared a dividend of TWO (2%) PER CENT., the same being consecutive quarterly dividend No. 63 on the Preferred Stock of this Company, payable July 15, 1911, when checks will be mailed to all preferred stockholders of record at the close of business on June 17, 1911; and for the purpose of this dividend and the stockholders' annual meeting both the preferred and common stock books of this Company will be closed from 12 noon June 17, 1911, to 10 A. M. July 20, 1911.
S. W. TRAVERS, Treasurer.



1891-1911

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